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Drone Production, and Honeydew.

TRANSLATED FOR THE AMERICAN JOURNAL.

The Baron of Berlepsch, when congratulating me on my sixtieth birthday (for which I kindly thank him and his amiable lady) avails himself of the occasion to make some remarks on certain topics which were the subjects of conversation between Dr. Preuss and myself, when that gentleman made me a friendly visit; namely, the production of drones and the formation of honeydew.

1. As regards the first point. In confirmation of the truth that the drones owe their existence exclusively to the queen, the Baron communicates from his Seebach reminiscences the well-ascertained fact that German or black queens, though fertilized by a yellow or Italian drone, and consequently producing mixed workers, some being yellow and some black, nevertheless produces black drones exclusively, whereas yellow or Italian queens occasionally produce black drones also. This observed fact, however (which I have often noticed myself), by no means constrains us to assume that fertilization exerts an influence on the production of drones, and the contradiction of the now generally accepted theory, which it seemingly involves, is by no means difficult to explain.

Of the black or German queen bees existing when the Italian race was introduced, it may confidently be assumed that they were of the pure German race, without the slightest intermixture of Italian blood. But the case is otherwise with the Italian bee, even in its native country. She is not there invariably found entirely pure, for even in Virgil's day already, the dark colored race subsisted along side of the golden or yellow, and so continues in close juxtaposition to the present day. In the course of time manifold intermixtures have taken place, the prevention of which has become only increasingly difficult, since her transplantation to foreign soil.

A queen may wear a golden yellow garb, yet I cannot regard her as pure Italian, if her mother was not also perfectly pure, and if from among her brood, besides yellow young queens, dark colored ones are also produced. It must

therefore not be surprising when queens, proceeding from such brood, though themselves never so bright and yellow, produce dark-colored drones. In this very result, the fractional dash of black blood inherent in such queens manifests itself. Such queens, too, not entirely pure from birth, occasionally produce truly golden yellow drones. But these, also, I regard as suspicious, rejecting them, and giving the preference to drones of less bright yet uniform color, which proceed from queens unquestionably pure. In selecting colonies for breeding, I have regard not merely to the bright color of the workers, but likewise to their industry and placable temperament; two qualities for which my Italians at least are pointedly distinguished from native blacks.

2. My remark to Dr. Preuss that I am not infallible, the Baron contradicts in his congratulatory letter, and remarks: "You are really infallible, for you propounded a theory of which till now not an iota has been disproved. But, in another matter I must controvert your opinion, namely, as regards the formation of honeydew. There is an aphid honeydew, and also a leaf honeydew, as I had an opportunity to satisfy myself only last summer at Tambuchshof." With an opponent who concedes at the outset that honeydew oftentimes originates from aphides, controversy may well be waged; but not so with those, who reversing the facts, maintain that the aphides do not produce the honeydew, but that these make their appearance only as a consequence of its production, and as consumers of it. With such we can have no controversy. He who never saw, in the rays of the sun, the spray-like rain of honeydew gently falling from the leafy boughs on which multitudes of aphides are embowered, has in truth as yet observed but little, and may be said to lack altogether the faculty of observation. That which, as the Baron of Berlepsch concedes, in many cases originates from aphides discharging certain unassimilable matters, others insist on regarding as the mere tempting bait or rich repast provided for those and other insects. Meanwhile we know that the aphides are congregated on the underside of the leaf, while the honeydew is always found on the upper surface alone, upon which if the aphides ventured, they would quickly be glued fast, as if by bird-lime.

But if honeydew be, in fact, not produced by aphides alone, but be secreted also by the leaves of trees, there should necessarily be a recognizable qualitative difference between the two products, emanating from sources so dissimilar. Has any one ever detected a difference or even attempted to ascertain whether there is any? I am exceedingly anxious to learn the reasons which constrain so sound a thinker as the Baron to accept or assume a two-fold origin of honeydew. The possible circumstance that when no honeydews occur no aphides are visible, would by no means be conclusive. Aphides notoriously make their appearance suddenly, and as suddenly disappear, so that frequently they are vanished already when their exuviae or their products are observed. Possibly, too, the saccharine matter of the honeydew may have become dried up before its existence was noticed, then followed a gentle rain or heavy dew, rendering it soluble again and available for the bees; and as these are now first seen visiting it, the superficial observer infers that it was produced quite recently, perhaps only in the previous night. That the honeydew seen on evergreens is the product of a coccus, is a fact not only visible but tangible, though the inexperienced may, in this case also, readily regard the coccus as a diseased secretion of the affected pine branch.

That the saccharine matter found issuing from the vetch, the horsebean, the still closed blossoms of the centaury, and the strongly swollen buds of the pear tree, and on other leaves and twigs recently pierced by bugs or larvae, is a vegetable exudation, is very well known. Such exudations, forming rich sources of supplies for bees, do not, however, come strictly under the category of honeydews proper. But that the latter should at times be the product of aphides, and again a vegetable exudation or secretion; and that there should yet be no essential difference in its composition cognizable, I cannot possibly believe. If the Baron has irrefragable evidence to sustain his views, I wish he would communicate it, that light may at last be shed on this subject. The notions of those who regard aphides as never the producers, but as always the consumers of honeydew, deserve no refutation. They refute themselves.

Carlsmarkt, 1st, 1871.

DZIERZON.

[For the American Bee Journal.]

Nomenclature in Bee-culture.

AGRICULTURAL COLLEGE,

Lansing, Mich., July 21, 1871.

EDITOR BEE JOURNAL,

DEAR SIR:—It has often seemed to me, that writers on bee-culture are at times unnecessarily obscure, and often misled by confusion in the use of terms—especially in the use of the words *species*, *race* and *variety*. These words, seeming to possess in the minds of writers no definite meaning, are generally used in a purely arbitrary

sense. I fully believe that we should make real substantial progress, if we would unite in giving these terms a definite meaning.

Now, dropping the Darwinian idea that all life is derived from some simplest form, which is yet far from being proved, we can say that a *SPECIES* includes all of those animals which have had a common origin, and are capable of an indefinite fertile reproduction through the sexes. Thus cattle are of one species, as we suppose all have come from one stock, and they are ever fertile with each other.

A *RACE* on the other hand, includes animals bred with care and possessing certain characteristics of form, color and temperament, which they impart to their progeny with more or less certainty, as they have been bred with more or less care. Now, while the characters of species are persistent, the characters of a race from the very manner of their origin are not so fixed. Thus in the cattle species we have several races, as the Devons, the Ayrshire, &c. If the Devons are well bred they will almost invariably show the clear, symmetrical horns, the deep red color, the fine trim form and quick elastic tread. Yet from the principle of atavism or animals resembling a remote ancestry, even the best bred Devon might have short horns, white hair, and a heavy form. This would be improbable, not impossible. Thus, while a species, as cattle, would always be cattle, a race might give increase that would so vary as not to be recognizable; though among thoroughly bred animals marked variations seldom occur.

Now the word *VARIETY* is frequently used in the same sense of *race*. Yet we think this unfortunate, and would recommend that our apiarists should avoid such use; as it is often employed in another sense, and giving to the same word a double meaning does not tend to clearness. We would restrict the term *variety* to those members of a race which show minor differences, that may be very temporary, or by careful selection in breeding, may become more persistent. Thus we have the red and the white variety of Durhams.

As we come to apply this improved nomenclature to bees, we think all will see and recognize its advantages over the present loose system of expression.

The *Apis Mellifica* or hive bee is a species, and includes the German, Italian and Egyptian bees, all of which come from an original pair. These all readily cross, and the offspring are always fertile with each other. Their characters as a species are persistent—as all possess males, perfect, and imperfect females in the same colony, and the queen takes no part except to deposit the eggs.

The black, Italian, and Egyptian bees are *rac*es. Being bred for long years in different localities, and with different surroundings, they have each become possessed of peculiar markings, habits, and temperaments, which, as will be understood from the character of a race, are liable to vary. From the law of atavism already mentioned, any of these races may occasionally show characters of the others, and still be pure breeds.

Now we might cross two of the races, and by careful breeding originate a third race; though this would require long care and patience, which Vogel has shown to be the method by which the Italians were produced. This makes the race none the less valuable; for if, by crossing the Egyptians and black bees, and then by careful selection in breeding from the offspring, we originate a third race, superior to either of the others, and which will keep better only as the result of careful breeding, surely we have improved our art by the introduction of a superior and distinct race. He who should object to Italians on this ground, should rest satisfied with cattle of the lank, ill-formed native breeds.

This truth, that the Italians are the result of crossing the black bees with the Egyptians, does not interfere with their being a distinct race. This they become as soon as they will invariably reproduce their kind; and this truth will make us all the more careful in procuring queens from the best breeders, and will make us take every precaution to insure pure fertilization in our own apiaries.

Again, as we become able to control fertilization, so as to select any males with the care that we do the queens, we may each develop varieties of Italians, as to color, temperament, vigor or industry, or perhaps all; and thus improve even the Italian race.

Mr. Editor, I am experimenting, and will soon write you on the drone question and fertilizing. Bees are doing finely this summer. We expect to have a grand time at the next meeting of our association, which meets at Kalamazoo, at the time of the State fair. I will send notice to the Journal in time.

A. J. COOK.

[For the American Bee Journal.]

Breeding in-and-in.

Some people think that because a good many inmates of an insane asylum are the offspring of blood relations, then all intermarriage of blood relations is most pernicious. Now it may be that a different rule governs in the human family in this respect, from that which obtains in the rest of animated nature, as shown by physiological facts. Or it may result from the fact that the "genus homo" has so deteriorated in domestication, that there is no mortal left without taint of some disease or other. It is certain that nature does not guard much against the mating of kin relations. For instance the buffalo of the plains mates with his own progeny, so long as by his strength he is the superior of the herd, say six or seven years—then mating room perhaps for his immediate descendant. The same is true of the deer of the forest. A flock of quails also consists usually of about equal numbers of males and females. They stay together during winter, and in the spring separate in couples of the same brood. The Jersey cows come from a small island, where this stock has bred in-and-in for centuries; yet for beauty of form and richness of milk, they

are the foremost cattle on the globe. Virgil sang of the Italian bees nearly two thousand years ago; and as the area where they are found is very limited, how much must they have bred in-and-in? When a hive swarms the emigrants go to the next hollow tree, perhaps only a few rods from the old one; and as queens and drones fly together many miles apart, who can calculate where intermixing ceases?

I think richness and abundance of food produce fine creatures. The sheep of my native home (Westphalia), living chiefly on heather, are small in size, and produce wool as coarse as dog's hair. In Friesland, adjoining it (which is a fertile country), the sheep are of large size and have the best of wool. Both kinds no doubt came originally from Noah's pair, and the quality of food made all the difference, independent of intermixing.

Queen bees raised when food is abundant are said to be handsomer than those raised when food is scarce. Some writers in the Journal think the queens fly out to prevent breeding in-and-in. More likely nature makes them fly to prevent a weak or wingless queen from mating with a feeble or crippled drone.

I never had any faith in breeding in confinement. I think nature has vetoed it. Putting up a musquito bar around the hive, might enable those to succeed who are anxious about it.

Some bee-keepers think that clipping the queen's wings deteriorates the stock. I do not see why it should. Breeding queens in nuclei, out of season, I should think more likely to have such a tendency.

T. HULMAN.

Terre Haute, Ind., August 1, 1871.

[For the American Bee Journal.]

Novice.

DEAR BEE JOURNAL:—Honey ceased to be brought in, in this locality, about July 13th; and up to this date (August 9th,) our index hive has not shown an increase of one pound. The bees are flying briskly, and at work, but the honey gathered is not equal to the amount consumed, by about two ounces per day on an average.

Of course many say that their bees are working finely and gathering honey right along, because they see them at work; but we have learned to regard this as very poor evidence.

We are watching the dial of the scales anxiously to see when the fall crop commences, as we have faith it will, although we have made our calculation from *some* past experience, not to be caught short this season, any way. So we have most of our hives with sealed combs of honey in the upper stories, as a reserve force, to assist any stocks that are short.

The advantage of combs of sealed honey for fall feeding has, in our opinion, never been half appreciated; and we are determined for the future to keep a surplus cash capital, or something better than cash even, when stocks are to be strengthened up, of sealed combs of honey the

year round. With a stock of these, even a novice may do anything he wishes, at almost any season, with comparative safety.

Our dial shows about two pounds of loss every morning when the bees fly out. Is not that the exact weight of the flying force? We suppose a bee, when going out to work, carries no honey with her, but we really do not like to kill one of the little pets to ascertain—even if there are forty thousand of them. Each little life is what we can easily take away, but that which none but God can give. We think that, with some little help, we can count just how many leave to make a pound—of course counting those that return meanwhile.

We think we mentioned, last season, that we made a series of cages with doors in a frame (eighteen in all), for queen raising. We did not succeed at all then, and are inclined to call it a failure. Our trouble was in thinking it necessary to have honey in the cages, and this, with the cell, occupied so much room that the young queens would get fast and die. Now we put nothing in the cage and remove the cell as soon as hatched; and have repeatedly kept queens until they were ten or twelve days old, letting them fly, one at a time, and securing them as soon as fertilized. A queen eight days old will sometimes become fertilized on her first flight, so that this may be accomplished without her going in at all, if she is secured on her return, as soon as she arrives at the entrance.

On one occasion we let three of them fly at once. One came back fertilized; the other two did not return, we think on account of a mishap, as follows: We were using a hive of full blood Italians for nursery, and were raising a great many fine queens with great satisfaction, until some brood hatched from a few eggs laid by one of the queens proved to be hybrid, and the young "mischiefs," as there were no eggs or unsealed brood to give them employment, began looking for something for them to do, for all the world like a litter of young puppies.

We had about a dozen queens of various ages, caged in the hive, and one day were surprised to hear a chorus of queen voices in trouble (are they not voices?). An examination revealed these same hybrid scamps reaching through the meshes until they got hold of the queens, then pulling their wings in strips and worrying them to death generally. We failed so far in stopping them that we lost nearly every queen; and the three we let out at one time were of the lot. The young bees gave two of them parting pinches as they took wing, so that we really could not blame them for not coming home. None of the old bees took any part in the persecution, but treated the queens with as much deference and respect as we should expect them to receive.

To test the matter, a new nursery hive was started, by removing the queen from a strong Italian stock. After the cells were put in nursery frame, all the combs were taken away except eight; and the quilt was left off entirely, for convenience. Nearly every cell hatched; the queens are now eight or ten days old, and none of them have been persecuted in the least. As drones are scarce now, these queens become fer-

tilized slowly. We do not think that the circumstance alone of these bees being *hybrid*, was the reason why they worried the queens; but they were hatched after the queens, and young bees must have something to do—*mischiefs*, if nothing else offers.

Artificial fertilization, we are sorry to hear, makes little or no progress. We thought at first that "AMATEUR" had it at last, and we enjoyed our Fourth of July by making a cheese-cloth "machine," seven feet high and six feet in diameter; put in a lot of drones and two queens seven or eight days old. As the queens circled around and the drones circled after them, we had strong hopes and kept them circling there for several days. But, alas, they circled in vain!

A friend made a house of cloth twelve feet long, but with no better success. We both feared to go to the expense of wire cloth, but determined to do so, should further success be reported. Yet now Amateur feels less certain, and speaks of a smaller wire house—which we have tried repeatedly with variations. Why can't we succeed just once, to give us a little faith? It is true, as we have many times said, that so far as honey is concerned, our present way of letting the queens meet the drones, is good enough, provided we only have an undoubtedly pure queen to rear cells from. But as every bee-keeper wants at least one queen of absolute purity, who is to supply them?

We wonder how many of our readers have enjoyed the luxury of watching their bees at work, instead of dozing and trying to sleep—or still worse, lying awake until seven or eight o'clock, as by far too many bee-keepers and others do—on bright, glorious Sunday mornings. We sometimes feel on rising at five o'clock that we almost have the great, glorious, beautiful world all to ourselves. No one stirring, and nothing to mar the harmony.

We think it was the first Sabbath in June that we arose as usual, repaired to the garden with mouth and eyes wide open, and feeling ourselves "monarch of all we surveyed." Hurrah! something's up! The Italians were hurrying out of their hives on a run, and tumbling over the fence westward, as if they were really going somewhere. There was, so far as we know, nothing in bloom then that should occasion such a stir, and our curiosity was somewhat aroused. We looked over in the direction the bees went, and saw nothing but their busy lines. It was the Sabbath, yet as no one else was up, (sound logic!) it would not be very wrong to follow them. Over fences we went, through the dewy grass, past gurgling streams, but nothing could we see of the bees, except occasionally a swift messenger overhead. A wild cherry tree showed a few at work, a thorn bush a few more. We gave it up, and had turned homeward disappointed, when the hum overhead once more determined us that we *would* find them, and having failed elsewhere, we concluded to try the woods. As the humming increased we felt a thrill of pleasure in thinking we were on the right track, as we approached a low piece of wet, marshy ground.

"Low piece of wet ground, indeed!" remarks our better half, over our shoulder—"I should think so, from the condition in which I found your Sunday gaiters, Mr. Novice, and the time them I had in getting ready for you to go to church!"

"But don't you see you shouldn't bother a fellow? Now we don't know where we were last."

"In the mud, Mr. Novice, I can certify to that!"

And now she is gone, we will take up our thread again. Well, the low wet ground was covered with tall shellbark hickories in full bloom; and never did buckwheat field or orchard present a grander jubilee in the way of humming industry.

We got home satisfied, just as our neighbors were "getting up," and were thinking of claiming as an excuse that we were not more sinful than they, had not our minister said in his sermon, a few hours after, that it was none of our business what our neighbors did, and that our chance of heaven would not be one whit better, whatever they did.

We will only add that if a spirit should be cultivated of admiring and enjoying the beauties of the works of our Creator, the advantage of a five o'clock ramble across the fields, in contrast with loafing in bed, would make a vast difference with

NOVICE.

[For the American Bee Journal.]

Unparalleled Yield of Honey!

Unprecedented and Astonishing Success!!

A YOUNG LADY'S REPORT, FOR 1871.

MR. EDITOR:—If your time is not too valuable and space not too scarce, please insert the following short account of the last few months with my bees.

It was on the 29th of May, that my father came home from his northern apiary, and told me that I was to take charge of it the next day (May 30th). It was nothing very unusual to me, because I have done so yearly for the last four years, and therefore I was ready immediately to enter my services.

June and July had always been the most lonesome months of the year for me, and so the former proved to be this year, but the latter was far different from any I overlived, as you will hear hereinafter.

When I first came here I had only forty-eight stocks to take care of, and indeed I must say that it seemed almost impossible for me to stay with so few, as I had been used to have at least over one hundred.

During the month of June, I had thirty-eight young swarms from the forty-eight; but still they were far from being enough to give me a chance to spend all my time in attending to them.

When I came home one evening, to report to father (as I do every Saturday), I complained to him of my few hives, and told him that though

they were all very busy, and doing their very best, I could not be satisfied; so he promised to send me more in a day or two. Two days afterward, I received a load with eighteen hives; in about a week another; and some days afterward a third one. Then I thought that there would be more of a chance to be doing something, and so indeed there was.

The stocks which father sent me were mostly young swarms, some of which swarmed twice again, others only once, and most of them only once; so that after the 1st of July I had nineteen more young swarms, and a little honey, as you will soon learn.

June 30th, father was here to examine my hives, when he also made twenty double hives, from which I was to extract honey about every three days; as he thought that during that time they would be filled. July 5th, I extracted my first half-barrel, which was one hundred and eighty-five (185) pounds. When I was through with it, I felt pretty well tired out, and thought it was quite a task for one day; but I had then no idea of what was still to be done. July 8th and 9th, I extracted $1\frac{1}{2}$ barrels, so that I then had two barrels. July 14th, I extracted $1\frac{1}{2}$ barrels, and during the rest of the week $2\frac{1}{2}$ barrels; July 17th, two barrels; July 19th and 20th, one barrel; and four or five days afterward filled the tenth barrel. By this time I had given up the notion of half a barrel being a day's work. You will bear in mind, Mr. Editor, that I was all alone; so that I not only extracted the honey, but also took out the frames, and put them in again.

The room in which I lived all this time was so filled up with barrels and boxes that I feared its breaking down, and was obliged to have some of them removed to another apartment.

This shows what can be done with bees, when there is a good season, and they are properly managed. I am very certain that those twenty double hives, which were mostly young swarms, gave me three times as much honey as they would have given me, had I not extracted the honey. Had there been two strong men, instead of a girl of seventeen years, to take care of more double hives, we might have had a larger number of barrels of honey.

With the honey extracted at home and at our southern apiary (of which my elder sister takes charge), we will have nearly thirty-five (35) barrels of honey, each barrel containing three hundred and seventy (370) pounds. How much box honey we will have, I cannot yet tell; but it will not be a little—perhaps 12,000 or 15,000 pounds. And all this honey was gathered by two hundred and ninety (290) hives—all that my father had left after his spring sales—with their increase, making in all six hundred and fourteen (614) hives. If the month of August should be as favorable for bees as it was last year, we may have another five thousand (5000) pounds of fall honey.

Does not this show that bee-keeping pays? Even if bees did sometimes sting me, so that I got almost discouraged, when the time came again to put on or take off honey boxes, or extract again (which was almost every two days),

I felt very much pleased that I could again fill several barrels. I did not blame my bees for stinging me, and indeed would not have bees which do not sting, else mischievous boys would come and steal the honey.

I have not been absent from my bees a single day for the last few months; but as the honey harvest is over now, I think I shall again get leave to come home.

Of course I can say very little about bee-business, for I only take charge of my apiary during swarming and harvest time; but I am almost convinced that that is the time when the greatest amount of work is required. I have had to work very hard sometimes these last few weeks, but my work has indeed been rewarded.

And now, Mr. Editor, if you should doubt anything stated in my report, I invite you to come out and pay off the visit father and I made you four years ago; and guarantee you will see the largest and nicest amount of extracted and box honey you ever saw in your life.

KATIE GRIMM.

Jefferson, Wis., July 30, 1871.

[For the American Bee Journal.]

A Lady's Comments.

MR. EDITOR:—The August number of the American Bee Journal has made its welcome visit, and its contents read with much interest, as we are anxious to gain all the information we can from experienced bee-keepers—having made bee-culture our business. The more we learn of the habits of the little beauties (the Italians) the more we wish to know.

We have been very successful this season in rearing queens, and having them purely fertilized, and have superseded all our black queens with Italians, which have proved far more prolific than the black queens were.

In early spring we cut out all black and hybrid drone brood, and thus prevented drones from coming out till the black mothers were superseded. We intend to talk Italian bee to our neighbors till we have stocks Italianized for a mile or two around at least.

We have experimented somewhat on non-flying fertilization, and, as others have done before us, "failed." We are a little skeptical on this subject, notwithstanding Mitchell, of Indianapolis, has the secret.* The season, thus far, has been a good one for bees. They are still working, some on white clover and melilot, which latter we deem one of the best plants for honey.

Many thanks to R. M. Argo, of Lowel, Kentucky, for his further warnings on introducing queens safely. We have had trouble to induce our bees to accept strange queens. We finally tried Mrs. Tupper's favorite way of exchanging queens. Taking her for good authority we risked a queen, and following her directions exactly, placed our queen on a frame after the bees had all been shaken off. Placing it with another frame in the new hive, we carried the parent

* Which "secret," as we understand, really belongs to Mr. W. R. King, of Milton, Ky.

stock some distance away. Waiting an hour or two, we went out to carry more frames to our new queen, and what did we see, but our nice yellow-banded pet curled up on the alighting board dead, and the bees still stinging her!

Rev. Mr. Anderson, in his communication on page 42 of the Journal for August, after giving an account of his battles with his bees to save a queen attacked by her own colony, asks—"wherein did I fail, or what should I have done under the circumstances?" We think Mr. Anderson should have caged his valuable queen and introduced her into another colony. He does not tell us whether or not he found queen cells in the hive. There might have been a young queen in the hive. We opened a hive a few days since, and found a queen which we pronounced a virgin queen; lifting another frame, we found another queen, the bees caught her, and evidently intended to destroy her. She took wing and flew away. On looking further we found our old queen, which we caught and caged. Being very anxious to save her, as she was one of our best, we introduced her into another colony, but on going to release her we found her dead. Thus there were three queens and three unsealed queen cells in one hive at the same time.

MRS. K. A. D. MORGAN.

Pella, Iowa, Aug. 4, 1871.

[For the American Bee Journal.]

A Few Questions.

MR. EDITOR:—Only to-day has the fact dawned upon our understanding, that if we would longer hold you as our counsellor *something* must be done forthwith. Indeed it was not lack of interest that made us slow to think; but when pleasantly and profitably employed, time flies, and the past year has seemed so short.

We have gained valuable information, while journeying in your company. One thing, though, that we know better every day, does not in the least make us proud; we fully realize how ignorant we still are.

When the Journal comes there is nothing on hand quite as important as searching its pages for something *practical*, that might help us out of a present difficulty.

We are told to remove surplus honey as soon as sealed over. What are we to do when the combs are full for a week, and still it is not sealed?*

* Whenever the combs are filled, or nearly all the cells are full, remove the honey, without delaying for the capping, if the pasturage and the weather continue favorable. Frequent removals under such circumstances, act as a powerful stimulant to incessant labor. If put in glass jars, and the honey should after a time seem to be too thin, it can be thickened without discoloring it, by setting the jars in a vessel of water and exposing them to a boiling temperature for fifteen or twenty minutes. This will also expel any noxious principle or poison it may contain, so that it may be eaten with impunity by those with whose stomachs new honey does not agree.—[ED.]

Shall we feed sugar in July and August, if forage is scarce, when the bees have large stores of honey?*

Is lack of honey the cause of perforated cells in brood combs?†

Ten colonies swarmed once each. We followed instructions, and had things our own way in that direction. Just when we supposed all were doing equally well, we found one new swarm greatly reduced in numbers, with uncapped and perforated cells, exposing dead brood. Of course we rushed to the books for light.

The "senior member" declared as his firm belief, that death and destruction was before our bees, in the shape of foul-brood. Indeed, it seemed so sure a case, that the hive was closed for sacrifice. Wiser counsels prevailed, and said hive was carried about half a mile distant, and fed liberally for a few days—which treatment entirely cured *our* foul-brood.

SUE W.

Pacific, Mo.

* Feed sugar syrup whenever forage is scarce or bees cannot fly out from "stress of weather." Feed all young swarms liberally for a week or ten days after hiving, and longer in unfavorable weather. Feed stimulatingly in July and August, however good the forage or ample the stores; but give the queen an opportunity to lay eggs, by extracting the honey from one or more combs, if there be not plenty of empty worker cells in the hive. This will furnish a stock of *young bees* to live over winter and labor in the early spring. Old bees commonly perish in winter, and leave the hive weak in numbers at its close, if young bees be not bred in the fall.—[Ed.]

† No case of "perforated cells in brood-combs," of sufficient extent to enable us to study it, has ever come under our observation, and we can only guess at the cause. It may possibly arise when the population of a colony, from any cause, becomes suddenly so reduced that the existing brood can no longer be properly attended to and protected.

Young swarms placed in close proximity to strong old stocks, may become depopulated, or rather be prevented from becoming populous, by having its returning bees decoyed to the old stock by the loud humming constantly kept up at its entrance. This, especially, after young bees are hatched, and begin to fly out. We have known a young swarm of Italians thus damaged, and the cause would perhaps have escaped notice, had it not been seen that the old stock, though known to have a fertile black queen, was daily receiving accessions of Italian workers. Placing the hives further apart at once stopped the emigration, and the Italian swarm thenceforward prospered.—[Ed.]

[For the American Bee Journal.]

More Lady Help Coming.

MR. EDITOR:—Still another lady with "bee on the brain." Truly the sphere of woman's usefulness is enlarging rapidly. It is now three years since I left my western home to visit relatives in Walpole, New Hampshire, and while there I became interested in the "mysteries of bee-keeping," and assisted in the apiary of J. L. Hubbard two seasons. After my return to the west, I concluded to give up my old occupation (that of school teaching) "with its wearisome

round of duties," and engage in the more pleasing one of bee-keeping. I purchased five swarms of the common black bees in the old fashioned box hives, and commenced transferring them into the movable frame hive, as soon as the fruit trees were in blossom. Some of the oldest combs I tied in with strong twine, but nearly all of it was held in place by strips of wood on each side. I had good success in transferring, and now have ten swarms of bees. Three of them were artificially made; the others swarmed naturally. The bees are working nicely in boxes, of which the most salable in this vicinity are the square glass ones, that will hold from four to six pounds. The season here has been a fair one, although we have had some rainy weather of late.

I am using a honey extractor manufactured at St. Charles, Illinois, that throws out the honey at a fearful rate; it is quite a wonder to the good people of this village, as it is the first one ever brought here.

ENTHUSIASTIC.

Omro, Wis., July 11, 1871.

[For the American Bee Journal.]

A Report from Illinois.

MR. EDITOR:—I am highly pleased with the Journal, and prize the correspondent's column very highly. It is very pleasing to take up the Journal and get monthly news from our brother bee-keepers, from all parts of our land, learning of their success or failure. This seems to give us new energy at once, for when reading of their success, we are incited to try to rival them, and when we learn of their reverses, it sets us to thinking, lest we fare as bad, or worse.

We well remember, in the spring of 1868, when, of all the stocks put in our cellar the fall previous, we brought out only three weak colonies to their summer stands, how much we were stimulated to greater and greater activity. And we now believe that our success since is partially due to the loss of those colonies then; for we set ourselves to studying with a will, that we might better know our business. We were often asked if we were not going to quit bee-keeping. Our reply generally was that we should yet astonish the natives; at least, we thought we should. The result has been as follows:—from the three surviving colonies above mentioned, and two feeble stocks purchased, we had, in the fall, fourteen stocks and one hundred (100) pounds of box honey.

In the spring of 1870, those fourteen stocks came through in good condition, increased to twenty colonies, and gave me four hundred and forty (440) pounds of surplus honey, mostly in boxes.

The spring of 1871 commenced with twenty colonies, and increased to thirty-one strong stocks; and up to July 10th, the surplus honey yielded was thus:

Box honey.....	377 pounds.
Extracted honey	910 "
Total	1,287 pounds.

Since July 10th, we have not secured any surplus honey, the bees obtaining just enough to keep up breeding quite well. The cause of the present deficiency is owing to the severe drouth, which has prevailed here for nearly six weeks. By actual weight, one of my medium stocks has not gained or lost half a pound in the past four days.

We expect a good autumn, however, from wild flowers, which abound here at that season. We think that in the average of seasons, we could secure as good results, or better than those now reported.

Mr. Editor, we feel glad to think that we did not give up the battle in the spring of 1868. We use movable comb hives, and Italian bees, which in this section prove to be far superior to the blacks. I will close by wishing the Journal and all its readers great success.

F. A. SNELL.

Milledgeville, Ill., Aug. 11, 1871.

[For the American Bee Journal.]

Encouraging Report from Canada.

Mr. Editor:—Will you be kind enough to send me the August number of the Journal, as my copy has not arrived, and I would not miss it for the yearly subscription, \$2.00.

I have been advising my box-hive neighbors to take the Journal, and when they look at the barrels of honey in my cellar, and I tell them that it is the American Bee Journal that gave them to me, they begin to think seriously about subscribing. What is two dollars to pay for the Journal, when we get several extra barrels of honey to replace them?

And now, Mr. Editor, allow me to thank Mr. Adam Grimm, of Jefferson, Wisconsin, for his promptness in shipping me queens. I sent to a queen trader of great repute, last year, for queens, and have not received them yet. Mr. Grimm's came by return of mail, and they are beauties.

This has been a good season for honey, since the white clover came into bloom. But the early part of it was very cold and backward. Bees gathered no honey then, but as most of the hives were well stored with it, breeding went on rapidly; and by the consumption of stores, empty cells were provided for the queen for the deposit of eggs.

I commenced here this spring with six stocks in movable comb hives, and one in a box—seven in all. The box stock never yielded me any surplus until I transferred it, and then only thirty-one pounds in comb, and five by the extractor—thirty-six pounds in all. From my other six stocks, I have taken nine swarms and seventeen hundred and seven (1707) pounds of beautiful honey.

By the way, Mr. Editor, I forgot to say that one of the swarms came from the box, and as I commenced sling my young stocks as fast as they stored it, the old hive assisted considerably.

I have now sixteen stocks, all in good condition. I sling them every three days. If we should get rain soon, to improve the pasture, I

shall get two thousand (2000) pounds. I believe I am in one of the best places in Canada for honey. If Novice was here, he would have to build a tank to hold his honey.

I have not time to give you an account of my apiaries away from home, which I have managed by friends, but will do so at some future time. I have transferred all of the old box hives around here, so bee-keeping is beginning to receive some attention for the last few weeks.

D. A. JONES.

Tecumseth, Ontario, Canada, Aug. 11, 1871.

[For the American Bee Journal.]

The Prindle-Greene Hive.

I do not know whether anybody else ever made one like it or not, or whether it or any part of it is patented or not. I have no moth-trap, for strong vigorous colonies are the only moth-trap needed, and all moth-trap vendors are either ignoramuses or swindlers. It has no queen nurseries, for all the queen nursery a practical honey raising apiarian needs, is a few small hives large enough to hold two full sized frames, such as he uses in his large hives. In these small or nucleus hives he can raise and keep on hand a few surplus queens for emergencies, hatched from cells made by full *populous* colonies. It has no non-swarming, queen-catching cage, for that is the biggest humbug ever suggested to the bee-keeping public—very little better than clipping the old queen's wings. It can be made a general, though not a universal non-swarmers by a minute's work. It has no outside house or wire to set over it, for that would make it too cumbersome and more costly. It has no permanent bottom board, for if it had we could not pick it up and shake the bees out so easily, after lifting out the frames. In short, it is a plain, simple, common sense hive, divested of all clap-traps, and we do not ask our bee-keeping brethren to "enclose us a dollar." "How are you, dollar?"

It contains ten frames, which are fifteen inches long and thirteen deep. The breeding apartment is "double-cased," with a dead-air space the thickness of a plasterer's lath. The outside case or board runs back beyond the breeding apartment, furnishing surplus honey room for either frames or boxes (in our market boxes are decidedly preferable). The back end is of single inch stuff, and is hinged on, so that we can swing it open, and slip the boxes *into the hive* from behind. This surplus honey apartment has a permanent bottom board, so that we can lift the hive, honey boxes and all up off of the main bottom board. And again, this honey apartment is separated from the breeding apartment by a glass or mostly glass partition. When we wish the bees to go to work in the rear boxes, we lift the partition out, and slip the boxes up to within one-fourth of an inch of the frames of the main hive. The rear ends of the frames hang on a piece of hard wood, which is about an inch square, and is dove-tailed into the sides of the hive, and the glass partition slips *under* this cross piece. Besides the front entrance, there is

a small entrance on one or both sides of the hive, which may be opened in the busy season, to let the bees enter right at the mouth of the rear honey boxes. I say *rear* honey boxes, because there are honey boxes on top also. But instead of using a honey board, we simply tack a narrow thin strip across on the under side of the upper honey boxes.

Now this is about all there is of it, without going into tedious detail, which I do not propose to do—even for “a dollar.” It may not be so everywhere, but I do know that a double-cased hive is needed in this latitude and climate. Our changeable weather here, and I believe everywhere else, prevents bees in thin hives from attempting to breed, when they ought to be increasing fast, and are increasing in “double-cased” hives. It is only little less than nonsense to talk about housing bees in winter, particularly if one has many of them. I believe I have as good a double-walled winter bee house, made for the purpose, as could be made, and after three trials I shall henceforward winter my bees on their summer stands. I have left a few colonies out every winter, and even in their hives they always have come through in better condition than those with extra care in the over-ground cellar. If I am fully settled in any one thing, it is against winter housing. What we want is a good, handy “wintering” hive—one in which bees may breed nearly all winter, and come through strong *early in the spring*, so as to gather the early honey, which is much the best, and which we mostly lose. The posterior honey box room in this hive, when filled with some good non-conducting absorbent, makes an excellent protection against the severe northwest winds of winter and early spring. [Some of our eastern bee-keeping friends will no doubt be surprised that, in this county, September is generally our best honey month. I have had bees work till the 20th of October. All considered, this, I think, is one of the best countries for bees that I have ever seen.]

My friend Hawley Prindle, the principal inventor, joins me in asking a general criticism of our hive, which some of our friends call “THE Hive.”

J. W. GREENE.

Chillicothe, Mo., July 14, 1871.

[For the American Bee Journal.]

Movable Comb Hives.

As I have seen no definite answer to questions about movable comb hives before Mr. Langstroth's patent, I will try to answer them in as few words as possible.

Francis Huber, of Geneva, over seventy-five years ago, used a frame hive, with four sides resting on the bottom board; each comb could be examined on both sides, and returned to its place without injury.

The Germans used movable combs, suspended by a bar at the top. Each comb was removed by cutting the edges from the sides of the hive.

Mr. Langstroth combined the top suspension

of the Germans with the four-sided frame of Huber, added a shallow chamber of his own invention, and made a more practical hive than any previously used, in 1852.

The triangular comb-guide has since been introduced by others.

The immovable bottom board, portico, moth-traps, &c., of Mr. Langstroth's first hive, are not now generally used.

Why it is necessary to make an exact imitation to be called a Huber hive, and is not necessary to make an exact imitation to be called a Langstroth hive, is a mystery not yet explained.

H. D. MINER.

Washington Harbor, Wis., July 8, 1871.

The frames of the original Huber hive, as it came from his hands, were in reality what are now called vertical sections; but were hinged together at one side so that though they could be opened like the leaves of a book, they could not be lifted out and returned. A modification of it for that purpose was subsequently attempted by Morlot, Simon, Semlitsch, Hofenfeld, and others; none of whom, however, succeeded in producing any valuable result. So far as practical bee-culture is concerned, that which is now conceived to have been a movable frame, was and remained a *fixture*.

The modern Greeks, centuries ago, used close-fitting slats or bars for the tops of their hives, to which the combs were attached, and which could be separately lifted out, when all happened to work right. But when that did not so happen, the entire top with its attachments could only be torn out by force, and might also be forced back again. It was half a step in advance, but there it stopped.

It was only when Dzierzon took the thing in hand and constructed a *hive* in which bars could be conveniently used for the support of combs, and these could be taken out, replaced, or interchanged, that bee-keepers were enabled to avail themselves of the advantages which such an arrangement presented. Dzierzon does not claim the invention or even the introduction of bars, but simply that he has made them available in practical bee culture. But he does claim the invention of a *hive* by means of which those bars are made available and useful. The merit of this invention is universally conceded to him. If he had *patented* it, the case might be different. He has never introduced frames in his apiary; and where the *pling* system prevails, as it does in Germany, and will probably to a large extent wherever land and lumber are dear, bars are likely to be preferred and retained, at least till they learn to make frames in a simpler and cheaper manner than now.

When Mr. Langstroth took up the subject, he well knew what Huber had done, and saw wherein he had failed—failing, possibly, only because he aimed at nothing more than constructing an observing hive, suitable for his purposes. Mr. L.'s object was other and higher. He aimed at making frames movable, interchangeable, and practically serviceable in bee-culture. Dzierzon had effected this for the bar, by devising and constructing a *hive*, enabling him to employ slats or bars in a manner in which they had not been employed before. But of his operations in Germany, Mr. Langstroth was entirely ignorant, and remained so till long after his own devices were perfected, and a patent applied for. Nor could Mr. L. have derived any benefit from the Dzierzon hive, further than as giving him, perhaps, incidental encouragement to persevere in working out his own conceptions. The fundamental ideas of the two men were essentially different. Dzierzon desired to and did

construct a *hive* in which the bar or slat could be advantageously used for comb attachment. Mr. Langstroth aimed at and succeeded in constructing a *frame*, and devising a mode of applying it by which it could be rendered of service in *any form of hive* that might be desirable.

Nobody, before Mr. Langstroth, ever succeeded in devising a mode of making and using a movable frame that was of any practical value in bee-culture, or could be introduced even in partial, much less in general, use. Now, every boy makes them, and the principle is adopted everywhere, either openly or covertly. What has brought this about?

Neither a bottom board, fixed or movable, nor portico, nor definite form of hive or special shape or size of frame, are embraced in the Langstroth patent. These or any of them may be formed and used as the option of the apiarian may suggest. The triangular blocks for enlarging or contracting the entrance are, however, included in the patent; and for that special purpose they have not yet been superseded by anything better, whether or not they be regarded as of any value as worm decoys.

An exact imitation of the Huber hive is indispensably necessary to entitle it to the *name*, because, as Blackstone might say, its essentiality consists in its entirety. It has a definite form and structure, which, what is called the Langstroth hive, has not. The essential feature of the movable frame—movable horizontally and vertically—adapts it for practical service, in any form of hive that is itself of any use; and therefore no precise or exact imitation is required, necessary, or indeed practicable.

The "mystery not yet explained" is, why Mr. Langstroth's claims and merits are perpetually carped at and questioned, while all "imitations," and *infringements* of his patent—even the most palpable and gross—pass the same critical ordeal without cavil or challenge! That is the *mystery*, and the *marvel*!—[Ed.]

[For the American Bee Journal.]

"The American Hive."—"Fertility of Queens."

On page 268 of the June number of the Journal, Novice says—"of all the foolish things about a bee-hive, we believe a movable side is the most so"—having special reference to the American hive.

Although some of his remarks in the article from which the above words are taken, were open to criticism, yet we disclaim any intention of reviewing them for that purpose, or to defend the hive he so mercilessly attacks; our sole object in quoting them being to ask him how the frames can be removed from the American hive without removing the side?

The frames being close fitting at the tops, some fourteen inches in depth, and well glued down by the bees, the idea of lifting them out and replacing, involves a fearful state of things. If the frames were not made close fitting at the top, and did not exceed ten inches in depth, the lifting process would be just the thing.

A few years since, we had several American hives made, with a door in place of the movable side, securing the top of the frames and backs by means of a cleat nailed between them. This worked well, and disturbed the bees much less than the movable side. Still, there are objections to it, which possibly Novice has overcome;

therefore, we request him, in behalf of the thousands upon thousands who use this hive, to advise us through the Journal in regard to their use. He certainly has no reason to fear his article will be tampered with by our publisher.

Last March, a gentleman brought us a hive of bees, which he desired to exchange for one that would swarm, saying that this stock had been in the family for twelve years, and never during all that time had cast a swarm; although it was always rich in stores and apparently prosperous. After setting the hive in the bee-house, we found that it was filled with honey, but sadly short in bees. We thereupon stimulated them faithfully until April 16th, when, very much to our disgust, we found that the queen had become too lazy, too old, or too aristocratic to lay eggs freely. Taking her between thumb and finger, we prepared her for burial, and introduced a fine Italian queen in her place, stimulating as before. The change was almost magical, and on June 30th, we found eleven queen cells, and the hive packed from top to bottom with "yellow-jackets." Removing all but three of the cells, and putting them in nucleus hives, we divided the stock into three, giving each of the two new swarms a queen cell, and leaving one in the old hive, which also contained the old queen. Our reason for this was that we suspected the bees had two objects in view when they reared those cells—to swarm, and to supersede the old queen, she being then nearly four years of age. A subsequent examination proved this latter surmise true, as we found the young queen engaged in laying eggs on one comb, and her aged mother performing similar duty upon another. Holding a comb in each hand, and watching the two queens deposit their eggs, we thought, with a curious feeling of partial distrust, of the many obsolete theories that have been promulgated from time to time; and felt that much remains yet to be learned upon points long since regarded as practically settled. A few days after this, the old lady took her final departure.

Our object in writing this is to show the wonderful fertility of this aged queen, down even to the latest moment of her life, having in a period of two months and fourteen days, raised a stock containing not more than one quart of bees to a very populous colony, furnishing bees enough for three good swarms; and also to show the no less wonderful instinct of the queen, or the worker bees, which realized and provided for her final exit, while she was at the height of fertility.

GEO. S. SILSBY.

Winterport, Me., Aug. 5, 1871.

[For the American Bee Journal.]

Plain Box Hives.

I have some experience in bee-keeping, and have used and seen in use, a variety of hives, and have come to the conclusion that there is no better hive for the mass who are not posted in the mysteries of the art (and they are the great majority of bee-keepers in this country), than the simple box hive, of about two thousand

cubic inches capacity, for the summer and winter accommodation of the bees, so constructed as to perfectly protect the bees from all wet, and as far as practicable from the extreme heat of the summer sun; and if that is properly done, it will sufficiently protect them from the winter's cold, and prepare them for remaining on the summer's stand the year round. As the form of the hive makes little or no difference to the bees (if not run into any extreme), it may be so constructed as to afford room to apply boxes enough to the sides, or top, or both, as to give the bees an opportunity to work the season through without any change of boxes, or disturbing them at all during the working season. The aggregate capacity of the boxes may be about sixty pounds of honey in the comb, which will be quite as much as a swarm will ordinarily put up in surplus boxes.

I have a number of hives constructed upon the above plan, and stocked with bees, and at the close of the season may be able to give to the public, through the Journal, the result of my experiments. There is no patent behind the curtain, for I have none, and never design to have, even if I succeed in getting up the best hive ever invented.

D. LATHROP.

La Salle, Ills., Aug. 7, 1871.

NOTE No form of hive which does not provide for or admit of the ready use of the honey emptying machine, can ever again find favor with progressive bee-keepers.—[Ed.]

For the American Bee Journal.]

Gallup's Reminder.

MR. EDITOR:—This is to inform you that we are still on this footstool, and up to our eyes in honey. The season has been an extra good one, and in due time we shall report.

Tell those anxious folks not to borrow too much trouble about Gallup's baiting his hook too late. Let them hold on to their dollars; they may want them to purchase lumber with, to make one of my new hives, when I come to give a full description, as I certainly intend to do in time for next season's operations.

I have too much business on hand to allow me to write for the Journal now; but have any quantity of hash cooking for its readers. As soon as we can find time to put it in shape, they shall have it.

E. GALLUP.

Orchard, Iowa, Aug. 7, 1871.

[For the American Bee Journal.]

Proper Size of Surplus Honey Boxes.

MR. EDITOR:—In common with many others, I like to see the large box question agitated in your columns. Messrs. C. O. Perrine & Co. have set the ball rolling in the right direction. We know that bees will store more honey in large boxes, but the small ones sell more readily and

at a higher price, and bee-keepers will stick to them until as good a market is found for large boxes.

This is a question that interests all engaged in the honey trade; and we want every bee-keeper to sit down in some quiet corner of his domicile and write to the Journal his experience upon his methods of obtaining surplus honey.

My own experience leads me to advocate the use of small frames, either in single or double sets, upon the top, or upon the sides of the hive. Small frames have all the advantages of large boxes. When a frame is filled with honey, it can be removed and an empty one inserted. This small frame plan, and the plan of elevating a box nearly full and setting an empty one under it, are the very best ways to keep bees steadily at work.

After reading Mr. Perrine's article in the Journal, and after a personal correspondence with him, I am tempted to ask, and will ask, if there is only one C. O. Perrine & Co. in the United States? This Company certainly show great enterprise in making honey an everyday article for the table all the year round. A few more companies of the same stamp would greatly stimulate the cultivation of the honey bee. The bulk of our honey is stored in the space of two or three months. If this could be delivered at proper times all the year round, honey lovers would buy regardless of the season.

Our New York city friends tell us that honey, like strawberries and other small fruits, have their season. Now, by looking at the market reports, we find the season for small fruits lasts the entire year; for as soon as the supply from the field is exhausted, we fall back upon the preserved, dried, or canned fruits. The skill of man has been applied to the production of hardy fruits, like the apple, which, with proper care, are preserved in the natural state until new apples are put upon the market in the spring. But, should the apples fail, or the price become too high for ordinary purses, in such case we fall back upon the dried fruit. In handling honey we have an advantage over fruits—we do not have to dry it for preservation; but any day during the year it can be put upon the table, as clear and as fine flavored as when stored by the busy bee in the height of the honey season. Should it assert its freedom from adulteration by becoming candied, behold the transformation which a little heat produces—it becomes as transparent as ever.

Now all that is necessary is to produce the honey in shapes to suit various tastes, and organize companies that will place it before the consumer at proper times, and there is no danger of honey becoming a drug upon the market.

Why, Mr. Editor, I know persons, even in the country, who are very fond of honey, yet rarely get a taste between the two ends of the year. How and when, and in what shape shall we supply these honey lovers? These are questions which we hope to see agitated through the columns of the American Bee Journal. Every bee-keeper is interested in the discussion. Who speaks next?

SCIENTIFIC.

[For the American Bee Journal.]

Honey Extractor and Strainer Combined.

One of the most convenient articles in an apiary, large or small, is a strainer made of tin. It is in two parts—the top, say twenty inches square and ten inches deep; large enough to take in the largest size frame on the four sides. Let the bottom be made of fine perforated tin or zinc, which is made by machinery. The bottom part is made five or six inches deep, and large enough to allow the top to fit in about one inch—a flange being made to prevent the top from slipping in too far.

In the lower part, close to the bottom of one side, a metal faucet may be soldered in, to draw off the strained honey. Legs two inches high, also of tin, at the four corners, are convenient. The cover of the top should have a flange all around, to fit inside, about an inch wide. This is convenient, as when you wish to lift off the strainer you can turn over the cover, place the strainer on it, and it catches the dripping honey.

The writer has found this such a convenience that he could hardly dispense with it. Frames of honey for family use, and bits of comb, can all be kept in such a vessel, accessible at any time, and well protected from bees and flies.

To extract honey from the frames, place them against the sides, with strips between, say an inch from the sides, and suspend the whole concern by four strong cords some eight or ten feet from the ceiling, and twist it up as near as it will go, and then give it a whirl back. My experience is, that after a few turns my combs are clear enough of honey, and it runs through the strainer ready to be drawn off.

Where there are many frames, the whole should be suspended by stout galvanized wire, such as clothes-lines are made of, with a swivel at the top to be hooked or screwed to the ceiling. To give a rotary motion, a board must be fastened to the bottom, with a spindle seven or eight inches long, passing into a hole, loosely, about an inch, leaving space between the bottom of the board and the fixture into which the spindle passes, of six or seven inches. Now, just as a boy passes a cord through the spindle of his top and winds it up, so here—only that the cord must be fastened, and the machine turned whirling fashion.

The strainer is a very great convenience in a family, wherein combs can be kept and cut as wanted. Its use as an extractor, though seemingly complicated in the explanation, is yet very simple, and will be found very easy to one who will make the trial.

D. C. MILLETT.

Holmesburg, Pa., July, 1871.

Although nothing is more simple in theory and practice than the history and care of bees, it yet requires constant and unremitting attention, if we aim at either instruction or profit. Can anything be well done and to advantage without these?

[For the American Bee Journal.]

The Wire Cloth House.

To AMATEUR.

DEAR SIR:—I have read with much interest your article in the July number of the Bee Journal, touching upon several subjects, among the rest a description of your wire house, in which you empty your frame honey, and have your queens fertilized. To the apiarian, these two items are of much interest at the present time; at least, the latter is one in which many of us are exceedingly anxious to learn *how* to have our queens fertilized by selected drones. I am in hopes others may be as successful as you appear to have been.

By the time this will reach your eye, a more extensive experience in this part of our business will enable you to give us the results of your labors, and I for one, will be much obliged if you will inform us how many queens you have had desirably fertilized in your house, and the number of failures. If you are the lucky chap that has found out THE PLAN, won't there be rejoicing among us? Well, I guess there will; and Novice's new hat will soar up, even if he has to run into the back yard from his wife, to give it a hoist. But I think my queens and drones would spend most of their time in fruitlessly bumping their heads against the wire cloth.

Yours,

L. JAMES.

Atlanta, Ills., July 14, 1871.

[For the American Bee Journal.]

Bee Stings.

MR. EDITOR:—In reading the "Bee Journal," I find in nearly every issue a remedy for *bee stings*, but do not remember of seeing spirits of turpentine recommended.

I find it the most efficient remedy I can use. One drop will be found sufficient to deaden the pain of an ordinary sting, and stop the swelling, if applied at once.

If stung around the neck or mouth so much that the poison reaches the stomach, a few drops taken in oil will give immediate relief.

The hands are most exposed (as all beekeepers *should* own a good bee hat); consequently, a nerve or vein is often stung. In such a case, extract the sting at once, apply the turpentine to the wound, bathe the wrist, the elbow, and the under part of the arm with the same, and in a few moments you will feel no inconvenience.

I have used it for over ten years, and always found it reliable.

OLD FOGY.

Lake City, July 10, 1871.

Though colony after colony of honey bees have dwelt, in uninterrupted succession, in the same apiary, their instinct is not improved, nor their reflective powers enlarged.—MRS. GRIFFITH.

[For the American Bee Journal.]

Alley's Rejoinder.

The Journal for August is at hand, one day ahead of time, as it was received on the 31st of July. I find my name handled rather roughly, and feel that I must make a reply to the statement made by Dr. Austin, on page 33. In the first place, I have not had his money or order on my books for a year. If I remember right, his order came to hand late last fall, and I gave him no encouragement that I could send him a queen. I offered to return his money, but he never called for it. I do not deny that I promised him his queen as many times as he says; but I can say that he was not oftener disappointed than myself. I struck out for two hundred (200) queens in May, but did not get fifty (50), as a cold storm set in and lasted three days. In some, nuclei queens had to be started several times before I got any. Now, I wrote Dr. Austin the reason why I did not send his queen, and the only reply I have seen, I found in the Journal for August. I wonder whether the Doctor thinks that his order was the only one sent in for queens? But he received his queen before his statement appeared in print, and I hope this will do him good. I wish also to give notice to others who have sent me money, and do not now want queens, to send for it; and if I do not send it back in due time, I will agree to have them report me through the Journal. Customers will understand that I cannot raise a thousand queens in a few days. I must have months. Nor can I fill orders in rotation. My business is to raise queens, and accommodate as many customers as possible. One man has ordered a hundred (100) queens. Now, suppose I fill his order at once, and let the smaller ones go. How could I do business in that way? A man who has sent in an order for ten or more queens, finds it most convenient to have a few sent at a time, thus dividing the lot.

I must also suit my own convenience in shipping queens. Queens that must be four or five days in the mail bags, should be sent on Mondays or Tuesdays. When they are not ready to go on those days, those orders must be passed till another Monday comes round, and the queens shipped to parties who can get them in two or three days. And then, when the next Monday comes round, if no queens are ready to ship, or the weather proves unfavorable for fertilizing, they must again wait another week. And so it goes. I wish my customers would understand, that I have been doing the best I could, under the circumstances, to fill their orders seasonably. Most of my customers treat me courteously, and give me all the time I desire to ship queens in. Now and then, it is true, I get a rough letter from a patron; and such correspondents usually wind up with "yours respectfully," but really, I cannot see it.

Well, now, one word about the season. I do not know how other breeders have found it, but this has been the hardest season here for queen breeding that I have experienced. I have two hundred and fifty nucleus hives, and have fed

them continually since the last day of April. I trust no one will think that we shall get very rich this year by raising queens. If we can get a living, and get back the money we have paid for bees, sugar, &c., we shall find no fault. I have on my books the names of two hundred and thirty-eight (238) customers ordering queens, and have no fear that Dr. Austin's statement will affect my business in the least, many of my customers returning their thanks for being accommodated so soon, in so unpropitious a season. When a man sends me my advertised price for a queen, and says he needs one to supply a queenless colony, he shall have one if I have one.

My friend Silsby speaks of my "self-reliance and pluck." Well, if a man is foolish enough to put his experience of several years into a beehive that he knows must work well, and will write articles to bring it into notice, thus setting himself up as a target for people to shoot at, who think they know more than he does, he must just know whether he has the "pluck" to back up what he says, or else he had better not try his hand at the business.

Halifax 2d got his gun off in a hurry, I think. As his article plainly shows his ignorance of what is going on in the bee-hive, and of what is published in the Journal, let me inform him that Mr. Alley is not at all apprehensive that Novice will hit him a rap across the knuckles, but is confident that if he should at any time do so, it would be done in a gentlemanly way. Halifax thinks that there ought to be a fair trial given to the hives introduced, and that the one which proves to be the best, should have the credit. Have I not made this offer to the Journal within a few months? Why did not Halifax pass along his "top-box" hive? No man took up my challenge, but Mr. Langstroth requested Rev. E. Van Slyke, of West Farms, N. Y., to send for the hive and test it. We shall no doubt hear from him when he gets ready to report. I have not yet heard a word about it, and do not wish to, till he has thoroughly tested the hive. But I have reports from other parties, and as I do not wish to "blow my own horn," I will let them report. The readers of the Journal will know that I have always given Mr. Langstroth credit for all that is due him. I use the Langstroth frame in my hive, and Mr. L. has the credit of the frame.

Halifax seems to have "top-box" on the brain, and wants them on top and nowhere else. Well, who objects to his putting them where he pleases? And should he not be willing to let other people enjoy the same liberty, by placing them on the sides, if they prefer doing so? He charges us with blowing our own horn. Had he read the Journal as carefully as he should, he would know that the last time we described our hive, we were invited to do so by the editor. Let me advise Mr. H., when he writes again, to post himself and then pitch in. Let him examine our advertisements. He will not find that we ever advertised a "moth-trap," or any kind of "trap." We do not sell or use anything of the kind. When he lets us hear from him again, will he let us know wherein the Bay State hive is not as good as it has been rep-

resented. Then we shall have something tangible to talk about. We have kept bees for several years, and have written more or less for the American Bee Journal, but have never spent our time in blowing up patent hives. When we can find nothing more interesting to the readers of the Journal, we do not write.

H. ALLEY.

Wenham, Mass., Aug. 2, 1871.

[For the American Bee Journal.]

From New Jersey to New Hampshire.

Since last writing for the Journal I have removed to this place, and being busily occupied, have found but little leisure for writing.

The section of New Jersey where I was located did not suit me, as the coast winds were so troublesome that I could get very little nice honey in the spring and early summer. A large quantity of buckwheat honey may be obtained there, but is not very salable.

The best honey localities we find, on reading the Journal, are not adjacent to the coast. Cool weather in the spring, and dry weather during most of May and June, prevented an early yield of honey, though breeding was carried on pretty well.

The severe drouth of last year, followed by a dry May and June, cut off most of the clover crop, except what was in the hay-fields. Bees commenced storing honey rapidly the latter part of June, and when the hay was cut early in July the storing of surplus honey ceased. In a short time my bees stored an average of perhaps thirty pounds to each good swarm. One colony stored nearly sixty pounds. All of it was removed with a machine.

In the last half of July none but the largest stocks gathered more than enough to supply their daily wants. Then the second crop of clover, golden rod, and other fall blossoms, caused better times.

In feeding bees in the fall I have been best pleased with upright tin feeders, holding about five pounds each. These are supplied with a float, and their inner sides are coated with wax. I like to fill them every day until the bees have enough, placing them in the cap. When necessary to feed in winter, I have used glass fruit cans with good success. By filling them full, tying on a thin strainer cloth, then inverting quickly and setting them on top of the frames or over a hole in the honey board, and covering with the cap. I do not advise waiting till winter, as the later feeding is put off, after the failure of natural supplies, the greater the danger of injury to the bees. A few years ago I made fifty Beebe feeders for spring use, and found them very good for feeding syrup, but have never made use of them for feeding meal and water, as recommended.

Last spring I tried one of Mr. Peck's automatic feeders, and it seemed to be a very good thing to use in moderate weather. I was particularly pleased with some of its features. It has no wood about it to shrink and swell, or sour. It is consequently easily cleansed thor-

oughly. Then it is absolutely impossible for bees to get drowned or daubed in it, when properly adjusted. I intended to make one on the same principle, but of large size, to try it this season, but have not had time or use for it. I bought a Harrison feeder when they first came round, and used it twice. The first time a little sediment in the feed choked the strainer, and the next time the feed ran through in a much larger stream than was useful or desirable just then.

J. L. HUBBARD.

Walpole, N. H., Aug. 5, 1871.

[For the American Bee Journal.]

Mr. Alley in Business Transactions.

MR. EDITOR:—Please find enclosed the amount due for another year's subscription to the Journal, and accept my heartiest wishes for its increasing prosperity.

I beg leave to avail myself of this opportunity to say that I was both surprised and concerned to find two severe strictures in the August number of the Journal, on Mr. Alley, of Wenham, Mass. Of course I know nothing of the particular points in these two cases, but as I have had several transactions with Mr. Alley, and in every instance have found him fair, upright, and, indeed, must say very *liberal*, I deem it no less a duty than a privilege to give him the benefit of this counter statement.

The hive I bought of Mr. Alley is, in my humble judgment, a model of neatness and excellence in its construction; and whilst I have neither the wish nor the ability to speak of its *comparative* merit, I can only say that I am delighted with it now that the bees have gone fairly to work, and are filling the boxes with honey equal in point of beauty to any I ever saw, the combs being of unusual and extraordinary thickness.

Like others, I have experienced some delay in the receipt of Italian queens ordered from Mr. Alley, but I was persuaded that this delay was unavoidable, and due entirely to the causes so fully and frankly stated in his private letters and in his published statements. And as my patience and confidence has just now been rewarded by the receipt of three beautiful queens, so I hope, "by the same token," that Dr. Austin's longer probation has been crowned by the same happy result; and that we shall hear of a pleasant reconciliation in the next number of the Journal.

We have had a fine honey season in this region in spite of many adverse circumstances, such as the failure of the locust and fruit blossoms, for which we were fully compensated by the abundance and richness of the white clover. From twenty-six stocks I had only eighteen swarms, but even this was far above the general average.

B. J. BARBOUR.

Gordonsville, Va., Aug. 11, 1871.

Honey was one of the first articles of human nourishment.

[For the American Bee Journal.]

Experience of a Tennessean.

MR. EDITOR:—As it is very seldom that I see anything in your valuable Journal, from this section of the country, and as I have never before dared to intrude upon your columns, I will by your permission, give you the experience of one who has kept bees all his life, upon the old foggy plan. As I have stated, I have had bees in my yard for twenty-five years, in the old box hives, sometimes thirty or forty, sometimes only eight or ten. Sometimes they would swarm, and sometimes they would not.

Last fall there came to my house a vendor of bee-gums, patented by a Mr. Mitchell, of Indiana, who made very earnest efforts to sell me a right for twenty dollars, to manufacture and use the hive. He was truly a very smooth tongued fellow, spoke fluently of his moth-trap, and praised the many advantages of his gum. I examined it and told him I did not like it, and at last got clear of him. But in about ten days he came again, told me that he had sold rights to Mr. A. and Mr. B., and did not wish to leave the neighborhood until he sold me one. I finally bought a right, and he was to come over next day and transfer a swarm for me. True to promise over he came, and put a swarm in, tying the combs in with rag strings. I had the gum set at the proper place, paid him his twenty dollars, and off he went. I watched my bees very closely, and thought they were doing fine. So about the first of March, I thought it was time I was looking at my bees. I protected my face, opened my Buckeye door and made an effort to draw out the bees, honey and all. But, alas! it was "no go." I found everything glued fast with propolis. I pulled and shook until I got the bees most fearfully mad. Then I retired a short distance, called to my aid a hatchet and a large chisel, and by their help I got the bees out. By this time I had received five or six stings, and my ardor on the bee question had considerably abated.

But, Mr. Editor, luckily for me, I had by some means, got hold of one of your Journals, which I read very carefully, for the bee fever was beginning to run high in the country, and I was anxious to learn something about the business. In that Journal I found that two-thirds of your correspondents were in favor of the Langstroth hive. I purchased seven rights; for, mark you, I had eight stands when the Buckeye bee-man came along. He had put one swarm in a Buckeye, which left me with seven in box hives. I had seen in your Journal instructions how to transfer, so I got my better half to assist and at it we went. Instead of tying combs in with rags and strings, I used small strips of thin wood, two on a side. So we got the seven transferred, and I think we made a good job of it.

I also saw in your Journal that the Italian bee was highly spoken of, so I strained a point and bought a queen. I introduced her according to directions, found all right, and in just twenty-eight days, had the pleasure of seeing

the yellow fellows sporting in the sun. The first of April found me with eight colonies, seven in Langstroth hives and one in a Buckeye. My colony of Italians being a new thing, my next effort was to get more Italian queens. In order to accomplish this, I transferred my Italian queen to a black stock, destroying the black queen first, of course. In a few days the unqueened stock had started ten queen cells, and in ten days I found all ready to come out. I then went through all my black colonies and destroyed the black queens; and cut out all my queen cells but two to replace them. In a couple of days after inserting a queen cell in each, I examined the queens again, and found three of the cells all right and two destroyed. I was, however, satisfied with my experiment.

To-day, Mr. Editor, I have sixteen strong colonies, all in Langstroth hives, save one; and all Italianized, save four; and I have sold four hundred and sixteen pounds of as nice clover honey as NOVICE ever saw, at thirty cents a pound. I know that Novice, Gallup, Quinby, or any of the larger lights, could have done better; but I think I have had wonderful success.

So far as the Italians are concerned, I like them very much. They are perfect beauties and good workers. But from my very short experience I think the hybrids, as honey-gatherers, a little ahead of the blacks or Italians. But, oh gracious! they are perfect hyenas for fight!

It would afford me great pleasure, Mr. Editor, to see in your valuable Journal some thoughts from our old Tennessee bee-men. There is a Hall, a Davis and a Hamlin, who have grown gray in the service, and would both interest and instruct. Let us hear from you, good friends! Give us your thoughts, and give them freely, upon the various topics involved in bee-culture.

Fearing that I have trespassed, I will close, by wishing you and the American Bee Journal a prosperous 1871, and by subscribing myself,

THE SMALLEST NOVICE.

Tennessee, July, 1871.

[For the American Bee Journal.]

West Tennessee as a Honey Region.

MR. EDITOR:—Seeing the inquiry for a good honey district, in the July number of the Journal, and knowing the general wish for communications from the South, I thought whilst renewing my subscription, I would give you my experience for the past two years.

The year 1869, was a very good one for honey here, and as I saw bees generally doing so well, I purchased two colonies in Walker's movable comb hives, in January, 1870, procured Mr. Langstroth's invaluable book, and with the help of the American Bee Journal, hoped I might be one of those bound for success. That year (1870) was called the poorest one in a long period. A snow storm about the middle of April killed all bloom, and most effectually stopped swarming. I had two swarms previous to that time, which I saved, by giving them a comb of honey, each, from my old stocks.

Up to the first of July, my bees did little more than make a living. Still, I received thirty pounds surplus honey in boxes from the old stocks, and my swarms filled their hives. In 1871, the bees began swarming on the 22d of March. All first and second swarms have filled their hives—two-story Langstroth's, which I have used for this season's increase. I now number twenty hives. Having all new comb, I have used my Hruschka but little. On Monday, June 5th, I extracted the honey from the upper story of one hive, and on the following Monday found it full again, and a considerable quantity capped.

My bees are natives, except one colony of Italians.

A man near here boxed a fugitive swarm about the first of April, and they have increased to five.

If from the above your correspondent thinks this a good honey district, he will find plenty of North Carolinians to welcome him.

West Tennessee, July 25, 1871. 10 S. E.

[For the American Bee Journal]

Bee Notes from Wayne County, Ohio.

MR. EDITOR:—I am a constant reader of the Bee Journal, and when welcoming its visits, often feel like throwing in my mite with the rest, having bee on the brain at times, like others. I began bee-keeping some years ago (won't say just how many). In 1870, I was the possessor of three stocks—one Italian and two blacks. During that summer my colonies increased to twelve, three Italians and nine hybrid stocks. I wintered them in-doors, without losing a single stock. Last spring I started in good earnest to Italianize them, and increase them by artificial swarming, which I regard as much the better plan, when properly performed. I have now thirty-five stocks, nearly all Italians.

I stimulated in early spring, so that my bees were in good condition when the swarming season began. The present season has not been more than an average one for bees in these parts, owing to the drouth in May and the changeable weather in June. Black bees swarmed but very little this season.

Well, Mr. Editor, and readers of the Journal, I have two Italian stocks to which I paid a little more attention than to the rest, and will give you a statement of my success with them.

One of them gave me eight artificial swarms, (Italians) good and strong enough to survive the coming winter, and each worth fifteen dollars—total from this colony \$120. The other gave me three swarms—together worth \$45, and seventy pounds of choice box honey, worth, at twenty-five cents per pound \$17.50—making a total profit from the second of \$62.50, and a grand total from the two of one hundred and eighty-two dollars and fifty cents (\$182.50)!

If any of the readers of the Journal have beaten this this season, let us have the record, and oblige

E. J. WORST.

New Pittsburgh, Ohio, Aug. 7, 1871.

[For the American Bee Journal.]

Bees in Alleghany County, Maryland.

MR. EDITOR:—As I do not see that anybody is writing for the Journal from this part of the country, I thought I would send you a short letter showing how the bees are getting on here. Mine did pretty well all the fore part of the season, but are not doing anything now, scarcely getting enough to support themselves. My first swarm came off on the 27th of April, and I had to feed it about two weeks, as the weather was so cold here that they could not go out to get anything.

I am using the Buckeye hive. Some say the chambers will stick after the swarm has been in for awhile; but I say it will not, for I had a swarm in one for about two months, and it has not stuck yet.* But still I do not see why it was patented, unless it was for the moth-trap; and as for that, I advise all bee-keepers to keep it out of their apiaries, as it is more of a hiding place for moths than a trap. I find the best trap is to keep the colonies strong, and then I am not much troubled with moths.

There are plenty of "old fogies," as they are called, in Alleghany county, and they cannot be persuaded to do anything. When I advised one to get a frame hive, he said—"it costs too much," and when I told him he would get his money back again if he would take proper care of his bees—"I will have trouble with them then, and so it will be all the same!" I let him off for I thought there was no use to talk to him.

About one-third of the people in Alleghany county are bee-keepers of their own sort. They have their bees in nail kegs, flour barrels, and various other things imaginable. One man had his hives in grass a foot high. He acknowledged that it was wrong, but had no time to look after them. Three years ago there was hardly a frame hive in this county, and little or no attention was paid to bees; but now improved bee-keeping is gradually increasing, and after awhile I think Alleghany county may take rank with other counties in this business.

I have one stock of Italians, and intend Italianizing my whole apiary. I am so far the only one here who has any Italians, and it will consequently be a difficult matter for me to keep them pure. Can any person give me a safe plan for fertilizing queens in confinement. There are many plans given, but I do not like to try them, because so many older bee-keepers than I am have failed, and I am but a boy. I would rather take the advice of older ones than try experiments myself.

A BEGINNER.

Cumberland, Md., Aug. 8, 1871.

* Further trial, in a good honey season, will effectually settle that point.—[Ed.]

If a man intends to keep bees, he must, in the first place, make the hives in the very best manner; by this we mean, of good materials and of good workmanship. A hive badly joined by an awkward carpenter, is worse than a hollow tree.

[For the American Bee Journal.]

Bee-keeping in the West.

MR. EDITOR :—I thought that perhaps a little scribbling from this part of beedom would give you and the readers of the Journal some insight to Iowa bee-keeping. I can say, with not a little pride, that I have paid my *footing* for a short time and became a member of the American Bee Journal family, and should health be spared, intend to continue till death severs me from earthly things.

The year 1870 was a poor honey season with us in Iowa. Our honey was principally honey dew, and though I do not relish the taste of that kind it is still better than none at all. Notwithstanding our poor season bees went into winter quarters last fall in fine condition. We had what might be called an open or mild winter, and bees came through in very good order, healthy and strong in numbers. Spring opened with fine prospects for the apiarian. There was a great profusion of fruit blossoms, and about the 20th of May white clover came in bloom. Since then bees have done nobly in honey gathering, but comparatively little in swarming. The cause of this non-swarming I am as yet unable to tell.

I am highly amused at the remarks of different writers on the Italian bees. I would candidly ask, do those bees deserve the praise that is heaped on them? I answer positively no! I am acquainted with men who have kept bees for years, and have tried the pure Italian bee, and their testimony is that they do not deserve one-half of what is said in their favor. But I do say that the hybrids, as honey gatherers, are better than either the common bee or the full blood Italian. I have one colony, the progeny of a five dollar (\$5) queen from an Italian queen breeder, and my word for it a man would think he had run foul of a hornet's nest in opening their hive, which seems like the bursting of a bombshell in a pile of beans; the first thing you know you are the recipient of a volley of harpoons, and looking out for a line of *retreat*. Methinks I hear some one say, "perhaps you have a hybrid queen." Well, perhaps we have, and if so, it don't reflect much credit on the breeder. But I shall give the yellow jackets another trial. The hybrids are somewhat mulish at times, but great "chaps" in storing honey.

A few days since I had a conversation with a professional bee hunter, who said he could tell in a moment what kind of bees were in a tree by seeing the quantity and quality of the honey. "But," said he, "I would as soon get into a hornet's nest as into the presence of Italian bees."

The continuance of the account of bee-keeping in Iowa will be found in some future number of the American Bee Journal. I do not know how it is with other subscribers to the Journal, but I would much like to see it come semi-monthly, and would gladly pay three dollars more for it to accomplish that object. Such are my sentiments.

GEO. W. BARCLAY.

Tipton, Iowa, Aug. 1, 1871.

[For the American Bee Journal.]

Notes from a Beginner.

MR. EDITOR :—For some time I have been waiting for a rainy day that I might have leisure to write, for in my short experience there are many items of interest to me, and may be so to others, if you think them worthy of a place in the Journal. First I will speak of

WINTERING.

As I told you in my last, I put eleven stocks in my cellar last fall. They came out in tip-top condition, except one, which I judge was queenless when put in, for there was not a pint of bees in the hive, and no queen to be found. My cellar is very dry—three feet above the rock, four feet in the rock, and rock bottom.

MOVING BEES.

When I brought out my bees, I had no place to set them, except my door yard. Then I went to work to clear a place in a grove, a little north-west from where the bees stood in the yard, thinking to put all my new swarms there. But I soon found I did not want my old stocks to remain in my door yard; so I wheeled them around towards the grove, and began moving them a little at a time till I could move them ten feet at a time, with no confusion. In about thirty days I had them all in my grove. At first there was a little confusion with two or three hives, a few bees flying about the spot where the hives stood the previous evening, with their hives not more than three feet from them. But they soon became accustomed to it, so that all moved off well.

FEEDING IN SPRING.

I had a swarm rather weak when set out. I commenced feeding it at once—my wife feeding when I was away. As I was gone most of the time in a sugar bush, I did not feed the remainder for some ten days after. The result was, the weak hive gave me my second spring swarm. My first swarm came out on the 23d day of May. I had several swarms before my neighbors had any. I conclude then that there is nothing lost in feeding, but much to be gained.

SWARMING.

I made all my swarms by artificial methods, except the first, which left for the woods the next day but one. It had made some comb, and the queen had even commenced laying. I suppose they left, because I neglected to shade their hive, as it was a very warm morning. Then I thought I would do my own swarming. So, as soon as the bees began to hang out, I divided them by one of Langstroth's methods. But something must ever be learned by experience. My first artificial swarm went to the woods, the second day, in my absence of course. But I did not think to give them any brood. To my next I gave two frames with brood and honey; yet, contrary to all the doctors, the next morning they fled. I seized a looking-glass and

they lit. I do not know but that they would have lit without the glass. I hived them in the same hive, and carried them to the grove; since which time they have been doing well.

TAMING BEES.

When I first commenced with my bees, they seemed determined to fight it out in their own odd way, by punching me with their tails. They would even come at me in my garden. First one would sing and threaten in angry tones, and then be off again,—only to return with reinforcements. They would hit me first under my eye, and then on my ear, pugilistic fashion. But fortunately I possessed about as much grit as they. By the way, the nose is rather a tender place to be stung. The first time they hit me there, it fairly made me cry. Its effect was like that of a pinch of snuff. I wiped my eyes, blew my nose, sneezed as well as I knew how, and called for some water. My wife, thinking I wanted a drink, brought it in a tea-cup. I didn't stop to change dishes, but stuck my nose as near to the bottom as it would go. This eased the pain very much. This occurrence almost made me sick of bees, for it was my hardest battle. They are now quite tame. I have divided until out of thirteen (I bought two in the spring), I have now twenty-six. I also bought one young swarm, and got one from the woods; so I have twenty-eight in all. I have made an extractor, and use it too; that is I made it by the help of the blacksmith and tinner; and do not think it infringes anybody's patent.

Besides dividing my bees, I transferred the original stocks from their hives, so that all my bees are now in one kind of hive. All this was done without a bee dress of any kind. I sometimes open my hives without any smoke. Now, Mr. Editor, don't you think that I have tamed them some? I never handled bees before. They are all black bees.

BEE STING—A POISON,

and water, pure water a cure. I am glad to see the columns of the Journal advise the use of water for the cure of bee stings. I add my voice to those of others. I believe water without any adulteration, but of full strength, one of nature's great remedies.

I don't know but this article is already too long for you, so I will close by wishing success to the Journal and enterprising bee-keepers.

H. F. PHELPS.

Pine Island, Minn., July 24, 1871.

[For the American Bee Journal.]

Successful Bee-culture.

MR. EDITOR:—I took my bees out of winter quarters on the 10th of February, numbering forty-two (42) colonies. Of these forty-two, thirty were good strong stocks of Italians. The season opened early, though honey-producing plants were backward. I fed three hundred pounds of sugar to my bees, till they could begin

to gather supplies: and took from them by the 4th of July three thousand (3,000) pounds of honey, besides making twenty-five artificial colonies. Feeding seasonably paid well. I have now sixty (60) colonies, in as fine condition as could be desired. Success to the American Bee-Journal.

J. N. WALTER.

Winchester, Iowa, August 7, 1871.

[For the American Bee Journal.]

Wire Clamps vs. Pins.

MR. EDITOR:—I notice Mr. J. J. Whitson gives us, in the Journal for June, an improved wire clamp for fastening transferred combs into frames, which he thinks is a little handier than any other device in use.

I have used strings, splints, wires, and pins, and must say that, everything considered, I prefer small wooden pins driven through gimlet holes in the sides of the frame, into the comb.

These do not have to be removed, and are never in the way. We prefer the wires described by him, to any of the devices heretofore used, except the pins; and still use them when the comb does not fill the frame.

J. T. TILLINGHAST.

Factoryville, Pa., June 20, 1871.

[For the American Bee Journal.]

Another Strange Occurrence.

DEAR BEE JOURNAL:—Something came under my observation the other day, that I am not posted in, and wish to have explained through our Journal.

I divided a colony of bees, moving the old colony to another place, and setting the new hive on the old stool, having placed in it a queen cell. After the queen had hatched several days, I opened the hive to see the young Italian queen. To my surprise I found an old black queen (the old stock divided was pure Italian). I caught her and caged her; and then looked further, and found the young queen.

The question is, how did the black queen come there? I put in only two frames of comb and young brood, and they were fresh from the old stock.

F. M. BAILEY.

Cynthiana, Ky., June 10, 1871.

DESTROYING ANTS.—A French agriculturist reports that, after trying every method known for the destruction of ants infesting some of his fruit trees, he succeeded in effecting his purpose in the most complete manner, by placing a mixture of arsenic and sweetened water, in a saucer, at the foot of the trees. For the larger species, he made use of honey, instead of sugar; and found, in a few days, he could exterminate them completely.

[For the American Bee Journal.]

Notes and Remarks.

MR. EDITOR :—I have been much interested in perusing the July number of the Journal, especially the different articles on queen raising ; but was very much disappointed in not finding any results of experiments with non-flying fertilization of queens. I fear all have failed, like myself. This is an experiment that much interests me, as I find much uncertainty in my queens' becoming purely fertilized, owing to black bees being kept near. A man living four miles from me has had queens mate with Italian drones, and no Italians are known to be nearer than mine.

Will "AMATEUR" please inform us, through the Journal, what number of wire-cloth his wire house is covered with ; and to what extent he has been successful in having queens fertilized in that house. He says (page 15 of the present volume), "so far as I have tried it, I have not had a single failure ;" but does not say that he has had *even one queen* fertilized therein. If it is a success, I am for a wire house.

I know it is contrary to theory, but I have frequently hived a swarm in a hive just painted, and also painted some soon after the bees were put in, and never discovered that it was in the least injurious or objectionable to the bees. I cannot, therefore, agree with the editorial note as to the cause of the mortality of E. J. Worst's bees (page 16, current volume). I think it was war in the hive that killed the bees on the three frames inserted, which were probably nearly equal to the swarm, as he states that it was an afterswarm."

This season has been favorable for increase of stocks, but little surplus honey. The first swarm issued on Good Friday, April 7th.

C. WEEKS.

Clifton, Tenn., July 10, 1871.

Nothing stated by Mr. Worst, in his communication, leads us to suppose that there was "war in the hive," in the case of his bees ; and if there had been, the cause of such war or animosity would in itself be quite inexplicable. RAMDOHR, who devoted a lifetime to practical bee-culture, and was in the habit of thus strengthening weak afterswarms, says explicitly, when recommending the process, "there need be no fear that these strangers will have a hostile reception. Many years' experience and reiterated experiments have satisfied me that they will be kindly received." If then there was war, what was the cause of a war so unnatural? —[ED.]

[For the American Bee Journal.]

Unfertile Queens.

MR. EDITOR :—I have two queens, very large and bright, one born June 15th, the other June 29th, which, up to the present time (August 11th), have not laid an egg ; yet all the conditions for fertile and prolific queens are present.

The cells were made in full stocks of fine bright Italians, and removed to nuclei on the ninth or tenth day. The queens issued, small

and bright, soon becoming very long and splendid looking, and (in usual time) having every appearance of being fertile. About ten or twelve days after their appearance of fertility, finding no eggs, I began stimulating them, which has been done daily since, although the nuclei are strong with bees, and have an abundance of honey and bee-bread, the bees leaving room in and around the centre of the middle frames, evidently on purpose for the queen to deposit eggs in. I have also supplied them with good empty worker comb at different times.

These queens are from a very prolific family, the mother and sisters being remarkable for their fecundity.

I have heard of similar cases, but not of such long standing. Will some of our experienced queen raisers give their views on the subject, from experience, if possible ?

I am keeping these queens to watch the result ; but may yet have to resort to dissection and the microscope to solve the problem.

T. B. HAMLIN.

Edgefield Junction, Tenn.

[For the American Bee Journal.]

Two Strange Cases.

Last season I introduced an Italian queen into a colony of black bees for Josiah Turner, Esq. The first of her progeny was beautifully marked, till nearly the whole swarm was Italianized. Then hybrids began to appear, and the Italians to disappear. After some weeks again the hybrids began to disappear and black bees made their appearance, with some few slightly marked ones among them. Now, one would hardly suspect that an Italian had ever been there. The bees have not swarmed. There is no appearance of a change of queen. I believe the same identical queen still remains in the hive. Can any one tell how these changes came about ? Did the queen mate with several drones, and if so, at one flight, or on different occasions ? I clipped her wings when I introduced her.

Another case. In the early part of May I removed an Italian queen in the apiary of E. O. Maritz, of Raleigh, and introduced her in a hive of black bees, where she remained some four or five weeks. I then removed her some fifteen feet, in a wire cage, into another stock of black bees. After leaving her confined about thirty-six hours, I opened the cage to let her walk out on the comb. But instead of her majesty doing so, she rose and flew (her wings were clipped last season), and in less than a minute's time she was inside of the hive from which she was taken thirty-six hours before. How did she find the way back, if she had not been out of the hive during the four or five weeks she was ensconced there, and marked the place ?

There is an increased interest in apiculture, since my advent here with the Langstroth movable comb hive and my reports of northern success. Frequent inquiries are made about Alsike and Italian bees ; but last year was not favorable to bee-keeping, and thus far this season has not been as good as the last. There have been very

few swarms, and no spare honey. In fact bees need feeding now. The early part of the honey season was wet and cold, and the latter part too dry. I hope it may be made up in the fall.

Most of the drones were destroyed in May already, and queens have nearly stopped laying.

Many persons are going to sow Alsike clover seed for honey and hay. If I had a supply of seed to sell on commission, I could probably dispose of it.

Raleigh, N. C.

JOEL CURTIS.

[For the American Bee Journal.]

The Yellow Bees and the Black.

I have watched, with deep interest, the controversy going on in the Bee Journals of the day, in regard to Italian bees; and have endeavored to read the *pros* and *cons* of Italians *vs.* black bees without prejudice, and have thus far kept silent.

As far as my experience and observation extend, I find that some individual buys a colony of Italians, and his first thought then is—"How shall I handle them so as to reap a small fortune from them in the shortest space of time?" To begin: if he has a few pounds of broken honey the Italians get it; if he has two or three frames of choice empty combs, suitable for brood, the favorite yellow bees are the recipients of it, and his inferior blacks are left to starve it out. The result in each case cannot be doubtful. The feeding the Italians have received stimulated them, they increase rapidly, and the timely addition of two or three frames of nice empty worker comb places them weeks ahead of the neglected blacks, and makes a grand difference in the results of the season.

Twenty-five years ago we thought a box hive, planed, painted, with two boxes on the top, a grand advance in bee-keeping. Then came the sectional hive, with one box on the top of another, and slats between, which was further followed by a host of other *bee traps*. But light broke in on all when the movable frame came into use, and bee-keeping then became a pleasure instead of an annoyance.

From a child I had a passion for bees, and have tried to keep posted on the various improvements in hives and methods of handling them.

When I say that I have the finest apiary in this part of the State, I do not say it to boast, but to show you the result of carefully dividing bees year after year.

In all my colonies there is hardly a hive that has more than five frames over one year old. For five years past I have endeavored to divide my swarms and renew one-half of the combs each year, dividing them up among the new colonies, and cutting out all combs that became thick and discolored, treating my black and yellow bees alike. I believe that I was impartial.

I *never did* and *do not now believe* that the Italians, under the same treatment for a term of years, will do *one whit* better than the blacks.

"And what is the result of your constant

division?" says some one. The result is this: I have secured a stock of bees which for size, hardiness and working capacity cannot be excelled by anything that stores honey, whether coming from Italy, Switzerland, Egypt, or any other country. They will reach the honey in any cup that an Italian can; will be found on the wing as early, and retire as late; will send out as many workers to the frame; will store as many pounds or boxes of surplus honey as any others in the same locality.

In fair and impartial experiments my black bees have done the best, two years out of three.

I am willing to admit that if you neglect your blacks; keep them in old almost worthless combs; and divide your Italians; keep *their* combs new and clean; give them the broken honey, &c., they will prove by far the most profitable.

The first colonies of Italians that were imported from Europe were costly, and the increase were quite naturally sold at high prices, and of course the market price for them ranged high. The price was such that those who had Italians divided them constantly, and but very few colonies were allowed to pass over the season without being divided, and one half or more of the combs being removed. The natural result was a large, hardy, energetic race of bees. But had an equal number of black colonies been imported at the same time, and treated exactly alike in every respect, I am safe to say that they would to-day have numbered as many colonies; would have accumulated as great stores, and given their owners as great an amount of surplus honey, and proved themselves quite as profitable.

Such, and such only, I believe to be the true facts in this question—*aze grinders* to the contrary notwithstanding.

Let a man go into the street of every town and argue that one out of three men whose arms are just two feet five inches long, each, could reach two feet seven inches into an iron tube, while the other two could not, and he would be called a lunatic. Yet this is just the position taken by those who advocate that a yellow bee can get honey from red clover, while a black bee cannot. *More anon.*

OLD FOGY.

Lake City, July 24, 1871.

Bee Superstitions in France.

In Brittany, if a person who keeps bees has his hives robbed, he gives them up immediately, because they never can succeed afterwards. This idea arises from an old Breton proverb, which says, being translated, "*No luck after the robber.*" But why the whole weight of the proverb is made to fall on the bee-hives, it might be difficult to determine.

In other parts of France, they tie a small piece of black stuff to the bee-hives, in case of a death in the family; and a piece of red on the occasion of a marriage—without which, it is believed, the bees would never thrive.

THE AMERICAN BEE JOURNAL.

Washington, September, 1871.

☞ We are in pressing need of No. 7, of the AMERICAN BEE JOURNAL, of Volumes V. and VI. (dated respectively, January, 1870, and January, 1871); and will pay twenty-five cents per copy, for those numbers, till our wants are supplied, if sent to the publication office, with the sender's name.

☞ Several copies of each of the numbers desired, have been sent to us in accordance with the above request, without giving us the senders' names, and hence we know not whom to credit, or thank.

☞ A large number of communications reached us so late in August, that we were unable to use them for this number of the Journal. Luckily there is among them none likely to lose in interest by brief delay in publication.

☞ We need not ask the reader's attention to Miss Grimm's brief and clear report of her success in practical bee-culture, this summer, at one of her father's apiaries, in Wisconsin—that will be a thing of course; and after reading it, they will readily join us in congratulating her on an achievement alike gratifying and praiseworthy. The season there may have been unusually fine, but to secure so large an amount of honey as TEN BARRELS from a comparatively small number of stocks, and with so little assistance, argues uncommon skillfulness and unflagging assiduity on the part of the young lady who accomplished the feat—a feat unexampled, we believe, in the annals of bee-culture in this country, or in any other. We have reports from other quarters, quite satisfactory to those who make them, and on the whole very flattering and encouraging; and there are more like them, and perhaps still better, yet to come; but, in view of all the circumstances, we think the bee-keepers of the country will cordially concur in assigning to Miss Grimm the palm of supereminent success in 1871.

☞ Mr. K. P. Kidder, we learn, is still endeavoring to blackmail bee-keepers for using or having used the triangular comb guide; doing so under the pretext that the assignment to him of Clark's patent, gives him the right to claim damages. The decision of the U. S. Court in favor of that patent, was fraudulently obtained—as Kidder well knows, having been the prominent agent in that transaction; and neither he nor Clark could sustain their demands by legal process against parties determined to resist them. Under stress of moral pressure, he sued Messrs. Langstroth and Otis at their request, as it was their desire,

and, as we are advised, the desire of the Court, to obtain a re-adjudication of the case. But he (Kidder) will take special care never to prosecute that suit to an issue—being perfectly conscious of what that issue must be. Meantime he is trying to put money in his pocket, by victimizing uninformed or timid bee-keepers. He will never bring or prosecute suit against any who will resist his demands, with a determination to contest his right to make them.

☞ From an account given by Dr. Preuss, in the *Bienenzeitung*, of a conversation he had, last year, with Dzierzon (which was substantially communicated to the Journal, a few months ago, with comments, by Mr. Adam Grimm), it seemed as if Dr. P. desired to create the impression that Dzierzon either did not venture, or felt himself unable, to maintain the correctness of his theory of drone production; if, indeed, he was not himself disposed to doubt or abandon it, at least in part. That this was all wrong, was obvious to us from the whole tenor of the conversation, as reported by Dr. Preuss. Courtesy to a visitor would disincline Dzierzon from engaging in a discussion which must, in view of the Doctor's known position in the premises, almost inevitably have led to controversy. Yet we felt assured that the Doctor's communication would, sooner or later, draw from Dzierzon a distinct disavowal of the imputation that he had changed his views, or had conceived doubt of the tenableness of his own theory, or felt unable to defend or maintain it. We have this now in a recent communication to the *Bienenzeitung*, which we have translated for this number of the Journal. It will be seen from it that the Dzierzon theory of drone production is still adhered to by its author, fully and in its original form. Let those who have been led to doubt, or who incline to entertain other opinions as to drone production, read the article and reassure themselves that there is no wavering there. For ourselves, we need only state that every clear test to which we could subject the theory, merely resulted in corroborating its truth, and authorizes us to reiterate, what we said on former occasions, that *the drones are the conclusive evidence of the true character and quality of the QUEENS from which they spring—THEIR MOTHERS*; that doubt or suspicion created by appearances connected with them, must be regarded only as of weight operating retroactively against those queens; and that all queens thus attainted, however large, or bright, or finely marked, are utterly unfit to breed from, and should be unhesitatingly rejected, when purity of race is designed to be secured or perpetuated. Mark this! The same principle, too, must be regarded as true, and be adhered to, in scientific attempts to originate and establish an improved breed.

☞ The Seventeenth General Convention of German Bee-keepers meets this year, on the 12th, 13th,

and 14th of this month, in the city of Kiel, situated in Holstein, on a bay of the Baltic. The programme, which we have just received, proposes fifteen general topics for discussion. A meeting was to have been held at Kiel last year, but was postponed on account of the war.

☞ The honey plant, of which a specimen was sent to us by Mr. McLay, of Madison (Wis.), is the *Monarda punctata*, or Horsemint, growing, according to Gray, in sandy fields and dry banks, from New York to Virginia, both inclusive. Bees gather honey from it, but what its quality is, or whether the yield is abundant or long continued, we are unable to say, as it has not come under our observation.

☞ Honey gathered by the bees from the blossoms of the *CEPHALANTHUS*, or Buttonbush, (which grows in moist places, marshy fields, or swamps) is apt to *candy in the cells* a few days after being stored; and probably imparts that bad quality to honey gathered from other sources, if mixed therewith in large proportion.

☞ BEE BOOKS.—Those desiring to procure some scarce works on bee-culture, may have an opportunity (seldom occurring) to do so, by turning to the advertisement of Rev. Mr. Millett, in this number of the Journal.

CORRESPONDENCE OF THE BEE JOURNAL.

CANAJOHARIE, N. Y., July 17, 1871.—I have a little leisure and must tell you what my bees are doing. They wintered finely; every stock was in a strong, healthy condition, when I took them from the cellar. The first natural swarm came out on the 20th of May; but I was after honey more than bees. I put them back and gave them plenty of room in surplus boxes. The result is that I have taken from this stock up to July 12th, about one hundred and ten (110) pounds of box honey, with a good prospect of as much more. Other stocks have done nearly as well; but, as is the way of the world, I am apt to put the best side out. The hum of the bees calls me to action, and I must close.—J. H. NELLIS.

SOUTH FRAMINGHAM, MASS., July 18.—This has been a poor season for bees here. I have not taken any honey from them.—E. EAMES.

BREESPORT, N. Y., July 19.—The season has been unfavorable for bees in these parts. There has been frost each month, and we have had cold drying winds, which kept the bees in their hives.

The night of June 26th, the dew was mingled with honey, but my bees seemed to have little or no regard for it. The night of the 29th brought frost, as usual, and on the 6th of July it was nearly cold enough for another. On the 9th the weather was very hot. Bees are not done swarming yet. The cold in June was detrimental to swarming. Clover is in full bloom, but seems to accumulate small quantities of honey.—J. H. HADSELL.

YOUNGVILLE, PA., July 18.—Bees are doing very poorly here this season.—W. J. DAVIS.

LEXINGTON, ILL., July 17.—Season remarkably good here so far. Will probably send report for Journal at the close, with diagram of bee-house built three years ago. Have waited for time to investigate, both summer and winter—and now am forced to conclude that a bee-house is necessary to judicious and proper management, under any and all circumstances.—W. REYNOLDS.

TYRONE, CANADA, July 19.—Bee-keeping in this section of country is doing very well this year. I have got fifty pounds of honey from one of my hives, and a swarm. I do not allow them to swarm more than once.—J. McLAUGHLIN.

POLO, ILL., July 19.—I began with five swarms of Italian bees this season, and now have nineteen. Have had "bee on the brain" for several years, and do not expect to get over it. Your Journal is just the thing for such patients.—M. J. HAZELTINE.

CEDAR CREEK FALLS, IOWA, July 19.—Bees here are in good condition. The season is good, and the honey also. Plenty of bees. Late swarming on account of superabundance of forage. Bees carried in pollen in March, and reared brood in abundance. Stocks strong too early for swarms, as the brood combs were filled with honey, and when the swarming season approached, there was no room for brood and swarms were delayed. Those who put on the honey chambers and set the bees to work in boxes, got early swarms and box honey. As I have an axe to grind, I shall say nothing of my hive, or of my success with my own bees at present; but intend to report for Cedar Falls, as to bees and hives, and will give the names of bee-keepers, the amount of honey obtained, and the number of stocks kept.—T. S. ENGLEADOW.

WILLOW BRANCH, IND., July 20.—My bees have done pretty well this season, until within two or three weeks past. The weather got so dry that there was not much to work on. We have plenty of rain now, and I think they will start up again.—J. SMITH.

MIDDLEBURG, VT., July 22.—There are two things I desire very much to see in the Journal, 1st a simple and effectual method of obtaining all perfectly straight worker combs; and 2d, the best way of obtaining honey in small frames, so that when removed from the hive the two sides may be covered with glass, making a small honey box with a single comb, nearly or quite as perfect as if it had been filled by the bees with glass on the two sides. I could send you description of our honey emptying machine, if you wish. It is a perfect success in every respect.—A. C. HOOKER. [Send us the description. Ed.]

BROAD RUN, FAUQUIER Co., VA., July 22.—My bees have done remarkably well this spring; but the honey season is now over. They may get some little honey this fall, but not to store in boxes. My hives are crowded with bees, and if I were in the West, where their main dependence is on the fall flowers, I might double my yield of honey.—H. W. WHITE.

LE CLAIRE, IOWA, July 23.—Since the 5th of July to the present time, bees here have not made a living. I use the Gallup hive. They say my bees take all the honey. I say to them to read the Journal, and they would get their share.—T. J. DODDS.

LEWISBURG, WEST VA., July 24.—There will be no honey taken in this section; this season; and very few swarms issued—not more than one in fifty from the black bees. I had from twelve to fifteen, from thirty-five thirty-four Italians and grades. I send you a

portion of a plant on which I found the bees working very strong. I wish you to ascertain its name, and report in the Journal. It is a strong growing plant, reaching about two feet in height, branches at the ground into eight or twelve shoots. Grows on thin land. I never saw it till this season.—T. L. SYDENSTRICKER.

The plant mentioned is the *Echium vulgare*, or Viper's bugloss. It is found plentifully in some parts of Maryland and in Shenandoah valley, Virginia. It blooms from June till the frost cuts it down; yields honey abundantly and of good quality; and is said to be the famous Russian bee plant. The books on farming say it is troublesome; but we have never known it to interfere with proper tillage of good land.—ED.

CHARITON, IOWA, July 24.—Bees here are doing better than they have done for the past two years. I have had nineteen swarms from nine stands—three artificial and sixteen natural. They were Italian and hybrids. My black bees have not done near as well, as I have only had one swarm where I ought to have had six or eight. This is to me conclusive evidence that the Italians are the best. Our neighbors are becoming more interested in bee-culture; quite a number come to see my Italians.—J. A. BROWN.

MAYVILLE, WIS., July 25.—Is it not strange that I read on almost every page of the American Bee Journal, how much earlier the Italian bees swarm than the black bees; and yet my Italians do not like to swarm at all this season? Blacks, however, cast swarms in the latter part of May. Till now, therefore, not very favorably impressed with the Italians.—A. W. LUECK.

NOBLESVILLE, IND., July 25.—The severe drought in this part of the country has been very hard on bees, especially on the common kind. People in our neighborhood now see the superiority of the Italian bee. My Italians have gathered honey through the dry weather, but the common bees had to fall back on their gathered stores. I have just Italianized my last stand of blacks. I introduced an Italian queen on the morning of the 31st, and on the evening of the 23d—thirty hours after introducing—I went to release her, but found the bees had already let her out. I looked through the hive, but could not find her. As I was about shutting up the hive, I saw her sitting on a weed about six feet from the hive. When I went to pick her off, she took wing and flew away, but in a few minutes I saw her alight on the side of the hive. I picked her off, and she curved herself in every shape, thrusting her sting out as if she wanted to sting my fingers; but my fear of losing her prevented me from giving her a chance. She is a young queen that had just commenced laying in a nucleus. I united two colonies, during the drought, without losing a single bee, by sprinkling them with sweetened water scented with peppermint. My bees are doing well since the middle of July. The bee fever seems to be contagious in this part of the country. I use the Langstroth hive, and think it the best, of course.—J. W. WAMPLER.

SENECA FALLS, N. Y., July 26.—Bees have done only moderately well this season; still it is not wholly over yet. I have had not over half a dozen swarms from forty-two colonies.—R. BICKFORD.

CHAMBERSBURG, PA., July 27.—Bee culture has not made much progress in this part of Pennsylvania. There are plenty of bees kept, but on the old plan of luck or no luck. Scientific bee culture has yet to take a start here. This, so far, has been a very good honey season here—more so than for several years past. Last year was the poorest I ever knew. White clover was abundant, but did not yield honey; but

this year both white and red seem to yield honey freely, and my Italians make good use of the great supply. At gathering honey they are superior to the natives; and, by-the-by, when any man pretends to say that they are no better than the native bee, I think (I suppose I may think) that he has yet much to observe and much to learn.—S. F. REYNOLDS.

FREDONIA, N. Y., July 27.—Bees have done well in this section, thus far. The Italians are in my opinion far ahead of the natives. So far as our experience goes, they are more peaceable than the blacks, work earlier and later in the day, in cool weather, and on days when the others will not work. We think they collect at least one-half more than the natives. They swarm earlier; and swarm in seasons when the native bees do not. In short, they are the *model bee*, in our opinion.—H. A. BURCH.

WILFRID, CANADA, July 28.—My bees began to swarm early this season, being in latitude $44\frac{1}{2}^{\circ}$, and wintered on their summer stands (no shed), without any protection but the hives. The first swarm came May 19th. I have increased from twenty-eight stocks to seventy-six; all very strong, with a large quantity of surplus honey.—D. REEKIE.

MADISON, WIS., July 28.—I made a honey-emptying machine this year, with the outside case stationary, and like it better than having the whole revolved, as I had it in 1869. I see one patented, and patent applied for, on the same principle. I got twelve hundred (1200) pounds of honey from fourteen stocks, besides making twenty young colonies, this summer. The honey was very plenty in June and till about the 10th of July; now there is scarcely any here. I was up about Wisconsin river this week, in a sandy country. I found there a plant that the bees gather lots of honey from. A bee-keeper told me that August was their best honey month, from that plant. I intend to get seed of it this fall for my own use. It grows about a foot high. I enclose the flower. It may grow on any land, if cultivated. Perhaps you can ascertain the name of it. If I could get it introduced here, it would be worth a good deal to me, as my bees can scarce live from this time till fall. There is no buckwheat near me this summer.—J. McLAY.

BATAVIA, ILL., July 29.—Bees have swarmed well, and made considerable box honey. On the whole it has been a fair season. I have Italians and black bees. Of these, the black bees have done best; but the hybrids have outdone both the blacks and the Italians. I find my Italians fractious, and very bad to handle, and prefer the half-breeds to any other bee.—S. WAY.

DEERING, ME., Aug. 1.—Our honey crop this season, thus far, has been a failure. The white clover yields comparatively nothing. The weather has been so very dry here since the fruit trees blossomed that there was little food for the bees. My bees have not swarmed this season, and very few have swarmed in this county. We have had some wet weather of late, and hope the drought has been broke. I shall not get more than twenty-five (25) pounds of box honey from five colonies, though my hives are full of bees.—JOS. BATCHELDER.

HARTLAND FOUR CORNERS, VT., Aug. 1.—We are having the poorest season for bees in this vicinity, thus far, that we had for several years. From twenty-five stocks of black bees, I have not had a single natural swarm, and many of them will not give any surplus honey. All of my Italian stocks have given swarms, except one; and from that one I have taken one hundred (100) pounds of surplus honey at this time (Aug. 1). I have already introduced more than twenty-five Italian queens this season, without a single

failure. For the past two years I have read every number of all the Bee Journals published in America to my knowledge, and the American Bee Journal is worth more than all the rest.—G. M. D. RUGGLES.

SCHUYLKILL HAVEN, PA., Aug. 2.—I wintered twenty-four colonies of Italians in Langstroth hives, two tiers of frames. The upper box holds one hundred pounds, and the twenty-four hives are full—tops all virgin combs—making twenty-four hundred (2400) pounds of honey in the combs; besides seven swarms, one of which filled top, one hundred pounds. My bees are now gathering rapidly from red clover. People may tell me what they please, in regard to Italians not gathering from red clover; for the last five years my bees have averaged from twenty to thirty pounds per hive, from second crop red clover. I get fifty cents per pound for my honey. So you see it *pays* in this county, right in the heart of the coal region of Pennsylvania. I am now *queening* my black bees, getting the queens from Mr. Alley. They all turn out, well so far. I winter my bees in the cellar, not being willing to risk out door wintering.—J. P. SMITH.

FORT ATKINSON, WIS., Aug. 2.—Our bees have done well, though the drought has cut our honey season short.—C. J. WARD.

NATCHEZ, MISS., Aug. 3.—Our honey crop in this section, this season, has proved a failure. Our spring opened early and gave promise of a good yield, but our hopes have been disappointed. All went well until May, when a rainy spell set in, continuing for about four weeks, preventing most of my black bees (already very backward) from swarming. Comb was started in many boxes, principally by Italians, and all new swarms; but not one box in my entire apiary has been completely filled and sealed. The yield of box honey in my apiary, consisting of fifty-two hives, will not amount to more than one hundred pounds. I have not had time to use the honey extractor this season.—J. R. BLEDSOE.

HUBBARD, OHIO, Aug. 3.—The honey harvest has been better than I expected it would be at the middle of June. We have had plentiful rains since then. The white clover is not quite done blossoming yet. I have taken sixty-one pounds of box honey, four full sized frames of honey and brood, and a good swarm, from one hive; from another, seventy-one pounds of box honey; and from a third, which was very weak in the spring, ten pounds of honey, a good swarm, and six full sized frames and brood. The honey I could sell at thirty cents per pound, so that my bees have paid pretty well. I use the Langstroth hive, with side and top boxes. There have been only few natural swarms here this season.—J. WINFIELD.

NORTH UNION, near CLEVELAND, OHIO, Aug. 7.—I have only ten colonies of bees, but they have gathered honey tolerably well for this locality. But there has been no swarming, except in one instance, and the swarm went off without clustering at all. Last year I lost three swarms the same way, though there is plenty of shrubbery for them to cluster on.—R. HONEY.

MOUNTJOY, PA., Aug. 7.—My bees are doing well this season. I will get the largest yield of honey from one colony that I ever got in one season. My bees are gathering honey fast now. In July the weather was too cool and too wet for honey gathering here. I enclose two dollars, for a new subscriber.—J. F. HERSHET.

GEHBARTSBURG, PA., Aug. 8.—Bees did well here, this season, so far as breeding is concerned; but as to honey, not so well. A large part of what I got is very bitter, and not good to use. The crop of white clover, which is our chief honey crop, was short, owing to the dry weather, and consequently the sup-

ply is small. I generally practice artificial swarming, but this season the bees took the lead, swarms issuing as early as the 10th of May, which is much earlier than we usually have swarms in this latitude. My bees are in fine condition, with still some prospect of buckwheat honey.—W. BAKER.

RANDOLPH, WIS., Aug. 8.—Bees are doing splendidly this season.—E. L. TOWNSEND.

HOLT, MICH., Aug. 10.—Our bees have done well here, this season. Mine have made at the rate of one hundred (100) pounds extracted honey, per hive.—J. L. DAVIS.

HAMILTON, ILL., Aug. 10.—My bees average forty-two pounds of box and extracted honey, per hive. The dryness of the season interfered with the harvest; yet I hope to have some honey from the summer flowers.—CH. DADANT.

PORTLAND, ME., Aug. 16.—Bees in this vicinity have accomplished but little this season. Swarms have been few, and the honey light. I have about twenty-five colonies, which I think are all in good order. I think the JOURNAL grows more and more interesting as it grows older; and I would as soon undertake to keep house without a wife and cook-stove, as to try to keep bees without the JOURNAL.—M. G. PALMER.

MONMOUTH, ILL., Aug. 16.—During clover bloom bees here did very well, also during basswood; but since the 1st of July they have gathered nothing. But little buckwheat is sown in this vicinity; still I hope to have a good yield of honey from fall flowers.—T. G. MCGAW.

[For the American Bee Journal.]

Parricides, or Bees Attacking and Killing their Queen.

There is no doubt of the cause, in the case of Rev. Mr. Anderson's loss of a queen, it being produced by poison from a bee—whether from a robber or from one of the inmates of the hive. I could be more explicit and cite incidents, were it not likely to make this article too long.

If there be any doubt, let some one try the experiment, by taking a comb with queen and bees from a hive, place some of the venom on the queen, and she will speedily be killed, while the operator will be likely to get a stab himself.

The more bees that are cut with a knife or otherwise injured, the worse the case will be, even to the killing of some or all the bees in a stock, or the apiary. Robberies and general fights are assisted by the *venom*.

The remedy is to separate the cluster, and drive the bees away from the queen with smoke, placing her in a cage till all is quiet and the odor of the poison dissipated, or disguised with feed, smoke or time. The safest method, and the one we generally use, is to remove the queen as above, and build her up a stock with combs of hatching brood; allowing the parricides to rear another queen.

Deserting stocks or swarms are generally accompanied by robbers in their flight; and on alighting, in their efforts to protect themselves or their queen, poison is given off, and woe be to the unlucky object that gets a "*taint*."

J. M. MARVIN.

St. Charles, Ill., Aug., 1871.